

# SAMSUNG

# RE-1270

MODEL

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## SERVICE MANUAL

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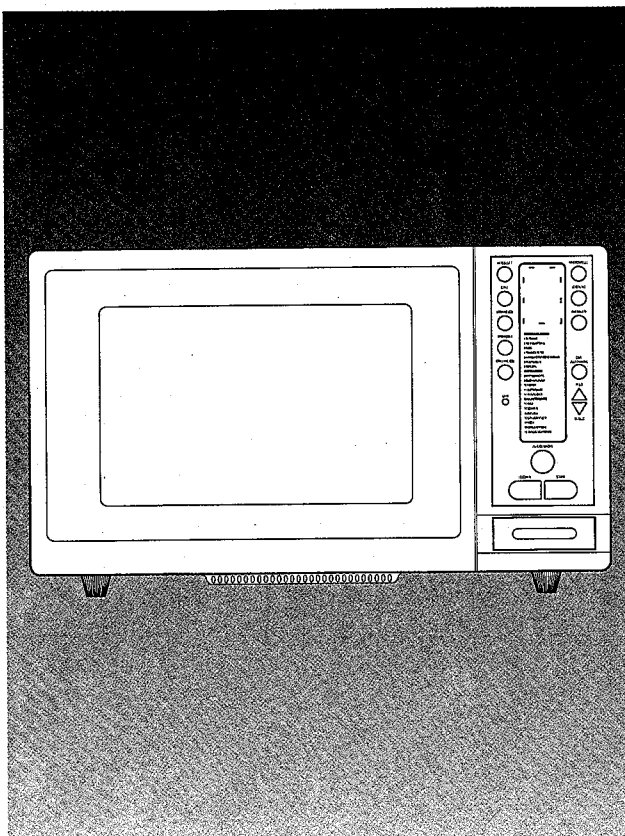
SAMS-00470

# MICROWAVE OVEN

## RE-1280

# **SERVICE** Manual

### MICROWAVE OVEN



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# 1. PRECAUTION

## 1-1. Safety Precaution ( ! )

- 1) Pacemaker wearers must consult their physician before attempting to service or repair a microwave oven.

For additional advice on this subject, write to the manufacturer of your pacemaker.

- 2) The product should be serviced only by qualified personnel.
- 3) Though the product has been manufactured in compliance with the Federal Performance Standard 21CFR Subchapter J(DHHS), it is very important when servicing to avoid being exposed to excessive microwave radiation. All the repairs should be performed in accordance with the procedures described in this manual.
- 4) Use only the identical parts as listed in the parts list of this manual in order to comply with the Federal Performance Standard 21 CFR Subchapter J(DHHS).
- 5) In the event of suspected microwave energy leakage in excess of 5mW/cm<sup>2</sup>, please notify;

**SAMSUNG ELECTRONICS GMBH(SEG)**  
**DAIMLERSTRABE 6-8**  
**D-6374 STEINBACH /TS.**  
**WEST GERMANY**

- 6) Repair microwave oven at no charge to the owner for excessive microwave emission level.
- 7) Ascertain the cause of the excessive leakage and instruct the owner not to use the unit until the oven has been brought into compliance.
- 8) If the oven is operated with the door open, please advise the owner not to use the oven and contact the manufacturer and CDRH immediately.
- 9) There are special components used in the microwave oven which are important for safety. These parts are marked with a on the replacement parts list. It is essential that these critical parts should be replaced only with the manufacturer's specified parts to prevent microwave leakage, shock, fire, or other hazards. Do not modify the original design.

## 1-2. Servicing Precaution ( ⚠ )

### PRECAUTIONS TO BE OBSERVED BEFORE AND DURING SERVICING TO AVOID POSSIBLE EXPOSURE TO EXCESSIVE MICROWAVE ENERGY

- 1) Do not operate the oven or allow it to be operated with the door open.
- 2) Make the following safety checks on all ovens to be serviced before activating the magnetron or other microwave source, and then make repairs as necessary.
- (A) Interlock operation
  - (B) Proper door closing
  - (C) Seal and sealing surfaces (arcing, wear, or other damages)
  - (D) Damage to or loosening of hinges and latches
  - (E) Evidence of dropping or abuse
- 3) Before turning on the microwave power for a service test or inspection inside the microwave generating compartments, check the magnetron, wave guide or transmission line and cavity for proper alignment, integrity and connections.
- 4) Any defective or misadjusted components in the interlock, monitor, door seal, and microwave generation and transmission systems shall be repaired or adjusted by procedures described in this manual before releasing the oven to the owner.
- 5) A microwave leakage check to verify compliance with Federal Performance Standards should be performed on each oven prior to releasing to the owner.

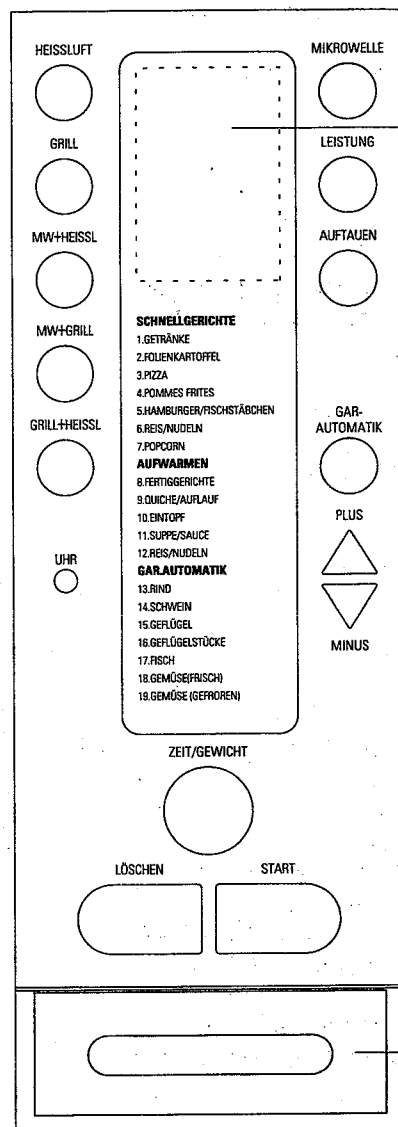
# 2. SPECIFICATIONS

ITEM	RE-1280
TIMER	99 MINUTES
POWER SOURCE	230V 50Hz, AC
POWER CONSUMPTION	MAX : 3,000W MICROWAVE : 1,600W GRILL : 1,300W CONVECTION : 1,400W
OUTPUT POWER	90W/900W(10 LEVEL POWER) (IEC-705 TEST PROCEDURE)
OPERATING FREQUENCY	2,450MHz
MAGNETRON	OM75P(10)
COOLING METHOD	COOLING FAN MOTOR
OUTSIDE DIMENSIONS	558(W) x 381(H) x 496(D)

### 3. FUNCTION CHART

FEATURE	MODEL
MORE/LESS	○
AUTO COOK/DISH	○
AUTO DEFROST	○
TIME COOK	○
POWER LEVEL	○
CONVECTION	○
GRILL	○
MICROWAVE + CONVECTION	○
MICROWAVE + GRILL	○
GRILL + CONVECTION	○
CLOCK	○
BARBECUE (ROTISSORIE)	○

### 4. CONTROL PANEL



#### ANZEIGEFENSTER

- \* Anzeige der gerade verwendeten bzw. eingestellten Garfunktion (mit Symbolen)
- \* Digitale Anzeige der Tageszeit oder der verbleibenden Garzeit
- \* Anzeige der eingestellten Leistungsstufe

#### FUNKTIONSWAHL TASTEN

- \* MIKROWELLEN-Taste zur Aktivierung des Mikrowellen-Betriebs
- \* LEISTUNG-Taste zur Einstellung der Mikrowellen-Leistungsstufe
- \* AUFTAU-Taste für die Auftauautomatik
- \* GAR-AUTOMATIK-Taste für die Automatikprogramme
- \* Tasten PLUS (Quick Taste) und MINUS für Garzeitverlängerung oder-verkürzung
- \* HEISLUFT-Taste zur Aktivierung des Heißluft-Betriebs
- \* GRILL-Taste zur Aktivierung des jeweiligen Kombi-Betriebs
- \* Tasten MW+HEISL, MW+GRILL und GRILL+HEISL zur Aktivierung des jeweiligen Kombi-Betriebs
- \* UHR-Taste zur Aktivierung des Uhreinstellmodus
- \* ZEIT/GEWICHT-Knopf zur Einstellung der Uhr, der Garzeit, des Speisengewichts oder des programm-Codes
- \* LÖSCHEN-Taste zum Abbrechen eines Garvorgangs
- \* START-Taste zum Starten eines Garvorgangs

#### TÜRÖFFNERTASTE

- \* Diese Taste drücken, um den Gerätebetrieb zu unterbrechen und die Tür zu öffnen.

## 5. OPERATION GUIDE

### SETTING THE CLOCK

Your combination oven has a built-in 24-hour clock.

#### SET THE CLOCK AS FOLLOWS.

To set the time of day

**EXAMPLE :** 14:30

Step 1. Touch the "UHR" button.

The display will show 12(hour).

Step 2. Push "ZEIT/GEWICHT" knob.

Step 3. Turn the "ZEIT/GEWICHT" knob to the right to set 14.

Step 4. Touch the "UHR" button.

The display will show 14(hour) and 00(minute).

Step 5. Turn the "ZEIT/GEWICHT" knob to the right for setting of 14 30.

Step 6. Touch the "UHR" button. The display will show 14:30.

The clock is now set and the colon(:) will be illuminated continuously.

The clock will keep the time now and show it on the display while the oven is not being used.

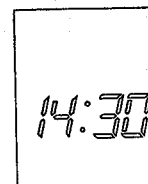
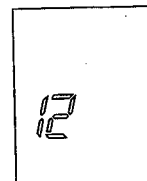
NOTE: 1. To reset the time of day, touch the "UHR" button.

The display will show 12(hour) and you can again set the time as is described above.

2. Clock display does not appear when the oven is operating or in temporary pause but reappears after cooking is finished.

3. Numbers will roll on counting up when the "ZEIT/GEWICHT" knob is rotated to the right and counting down when rotated to the left.

4. If the oven is switched off from electric power supply the oven will show all characters as soon as it is switched on and the time of day will be reset.



### HOW TO COOK BY MICROWAVE

#### COOKING BY MICROWAVE

Microwave cooking is ideal for fish, vegetables (fresh or frozen), sauces, steamed puddings, jams and preserves, rice, pasta, soups and drinks. You can also use the microwave mode for fast defrosting and reheating of previously cooked food. Remember only to use microwave-safe utensils when you cooking by microwave.

#### Cooking at the high power level (100%)

Step 1. Place the food on the middle of turntable in the oven.

Never switch on the microwave mode when the oven is empty without any food.

Step 2. Close the oven door.

Step 3. Touch the "MIKROWELLE" button.

The display will show (microwave mode), (1 stage) and 100% (power).

Step 4. Set the cooking time by rotating the "ZEIT/GEWICHT" knob to the right.

FOR EXAMPLE : For 5 minute 30 seconds on "HIGH"(100%),

turn the "ZEIT/GEWICHT" knob to the right to set 5:30.

Step 5. Touch the "START" button.

The light in the oven will turn on and the turntable will start to rotate.

The cooking time will count down to zero second by second, and the oven will automatically switch off.

The display will disappear cooking level and cooking stage indicator.

Display will appear the time of day and simultaneously beep three times.

NOTE: 1. The door can be opened during the cooking process by pushing the Door button.

This action stops the microwaving and the timer, so you can open the door and check the food.

If you want to continue cooking, close the door and touch "START" button.

Cooking will be resumed at the point where you stopped it, until the full cooking time has elapsed.

2. If you judge that the food is cooked before the full cooking time has elapsed, touch the "LÖSCHEN" button. The programme will be cancelled.

3. Cooling fan may still be operating for 1 or 2 seconds after door is opened during cooking.

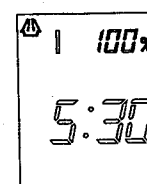
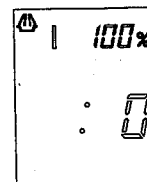
But there is no danger of bodily injury as it is designed to prevent over-heating of microwave oven.

4. Cooking time is programmed to have 3-level counting.

Up to 5 minutes: counting-up by 10 seconds.

Up to 10 minutes: counting-up by 30 seconds.

Up to maximum: counting-up by 1 minute.



## HOW TO COOK BY MICROWAVE

### TO COOK AT LEVELS OTHER THAN "HIGH"(100%)

Certain food give best results when cooked slower at a lower power level.

Your COOK BOOK will indicate the recommended power level and cooking time for each recipe.

**FOR EXAMPLE:** 5 minutes 30 seconds at "MEDIUM HIGH" (70%)

Step 1. Touch the "MIKROWELLE" button and turn the "ZEIT/GEWICHT" knob to the right to set 5:30.

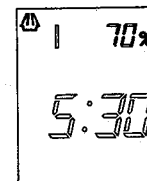
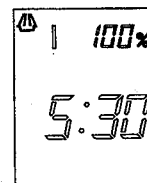
The display will show  (microwave mode),  (1 stage), 100%(power) and 5:30.

Step 2. Touch the "LEISTUNG" button three times to set power 70% (MEDIUM HIGH).

Step 3. Touch the "START" button.

The cooking time will count down to zero and then the indicators will go off, the oven will stop and the display will show the time of day.

**NOTE:** If you want to cook at levels other than "HIGH" should the LEISTUNG button be touched before setting the cooking time or during the cooking cycle, the power level will be changed to the new setting whenever you touch LEISTUNG button.



## POWER LEVEL CHART

Power can be controlled in 10 levels from 10% to 100%.


Power Level	Level Name	Output Power	Power Level	Level Name	Output Power
10%	WARM	90W	60%	SIMMER	540W
20%	LOW	180W	70%	MED.HIGH	630W
30%	DEFROST	270W	80%	REHEAT	720W
40%	MED.LOW	360W	90%	SAUTE	810W
50%	MEDIUM	450W	100%	HIGH	900W


## CANCEL

Use the "LÖSCHEN" button to: 1. Erase if you make a mistake during programming. 2. Cancel a program during cooking.

These 2 buttons give you even greater convenience in cooking.



### QUICK START

When the oven is in clock-mode, you touch "PLUS(  )" button once then the oven will switch on for 1 minute on full power(100%).

If you need to increase the time, press "PLUS(  )" button during the cooking.

The number of presses will be equal to the number of minutes.

### MORE( ) and LESS( )

The length of cooking time can be altered at anytime during the cooking whether the oven is on microwave, grill, convection, auto cook or combination cooking function. Touch "PLUS(  )" or "MINUS(  )" button at anytime during the cooking to either increase or decrease the length of cooking time by one or more minutes.

In case of GAR-AUTOMATIK, refer the Auto Cook Guide in the manual.

## AUTO WEIGHT DEFROST

This feature allows you to defrost meat, poultry, fish, casseroles, fruit or bread by weight using the "AUFTAUEN" button.

The oven automatically sets the defrosting time and power level for you.

### AUTO DEFROST GUIDE

**MEAT:** With this program you can defrost Beef, Pork, Beef steak, Pork Chops and Minced Meat automatically.

**POULTRY:** You may use this automatic program to defrost a whole chicken and chicken pieces.

**FISH:** We recommend this program for defrosting of Trout, Plaice, Salmon and Cod (either whole fish or fish fillet).

**CASSEROLE:** This refers to a traditional casserole (stew) containing meat, vegetables and e.g. potatoes.


**TIP:** When you freeze a casserole choose a flat container which is safe and suitable for use in the microwave.

**FRUIT:** The automatic program for defrost frozen fruit is especially made for soft fruit like Raspberries, Blackberries and Strawberries. But it is also possible to defrost Apple or Mango slices and Cherries with this program. You may often get frozen fruit with a weight of 250g in the supermarkets, therefore we have chosen this weight for the automatic defrosting.

**BREAD:** We recommend this program for Bread Rolls, Toast Bread(slices/whole), White Bread(slices/whole) and Brown Bread(slices/whole). If you wish to defrost Black Bread or Coarse Wholemeal Bread, we recommend you to defrost it manually and not with the automatic program. This kind of bread will need a longer defrosting time than the other ones and is therefore not included in the automatic program.

**\*NOTE:** After Defrosting or Cooking you should let the food stand for a little while outside of the oven. This is indicated with standing time in the tables.

Step 1. Touch the "AUFTAUEN" button.

The display will show  (auto defrost mode), / (code no) and 0.0. Select the type of food to be defrosted by pressing once to 6 times on the "AUFTAUEN" button.

Step 2. Turn the "ZEIT/GEWICHT" knob to the right to set the weight between 0.2kg and 2kg. (ex:0.2 shown on display means 0.2kg) The maximum weight that can be programmed is 2kg(meat, poultry, fish). Weight for fruit, casserole and bread is shown in the Auto Defrost table of the cooking guide book.

FOR EXAMPLE: To defrost a chicken weight 1.9kg.

Press "AUFTAUEN" button twice and turn the "TIMER/WEIGHT" knob to the right until the display shows 1.9.

Step 3. Touch the "START" button.

The timer will count down in seconds. When defrosting is finished, three beeps will sound and the clock display will re-appear.

## AUTO COOK

Auto cook is programmed to enable you to cook your favorite food without the need to set the cooking time or power level. The oven automatically sets the cooking mode(Microwave, grill, convection and combi). Auto cook is divided into 19 items in 3 groups according to food status. (Instant cook: 1 to 7, Auto Reheat: 8 to 12, Auto cook: 13 to 19).

### 1. INSTANT COOK GUIDE

**BAKED POTATOES:**\* For 2 potatoes arrange them on opposite sides of the rack.

\*\* Arrange 4 and 6 potatoes in a circle.

**FROZEN PIZZA:** If you want to cook a frozen pizza with a thin bottom, you should choose code 3-1. If you want to cook a frozen pizza with a thick bottom like they have in Great Britain for example, you should choose code 3-2.

\*\* To adjust cook times to suit individual tastes, use the [PLUS] or [MINUS] button.

### 2. AUTO REHEAT GUIDE

**PLATED MEAL:** This program is for traditional meals with meat pieces in sauce, cooked vegetables served with a side-dish like mashed potatoes or noodles. Depending on the kind of the meat, the thickness of the slices etc., it is possible that you sometimes will have to push the [PLUS] button.

#### IMPORTANT REMARKS

1. All the times in this automatic program are for food which comes right out of the refrigerator. If your food has room temperature you probably can push the [MINUS] button.
2. Make sure that all of the components of the food which you reheated are piping hot before serving.

### 3. AUTO COOK GUIDE

**FISH:** The automatic program for fresh fish is especially made for whole fish or fish fillets of trout, plaice, salmon and cod.

**FRESH VEGETABLES:** The automatic program for fresh vegetables is made for peas, carrots, beans, broccoli, cauliflower and mixed vegetables. If you want to cook other vegetables, we recommend you to cook it manually and not with the automatic program.

**FROZEN VEGETABLES:** The automatic program for frozen vegetables is especially made for peas, mixed vegetables, and sweet corn. For beans, carrots, broccoli and cauliflower. We recommend you to push the [PLUS] button

or to cook it manually with the same quantities of water.


We recommend you to stir the beans and broccoli in-between cooking time in order to achieve a better result.

Step 1. Press the "GAR-AUTOMATIK" button and turn "ZEIT/GEWICHT" knob to the right to select proper auto cook items(1 to 19).


Step 2. Press the "GAR-AUTOMATIK" button to select proper DISH according to weight.

**FOR EXAMPLE:** auto cook of casserole 0.6kg

Press the "GAR-AUTOMATIK" button and turn "TIMER/WEIGHT" knob to the right to set 10-1.

The display will show  (auto cook mode) and 10-1.


Press the "GAR-AUTOMATIK" button once and set 10-2.


The display will show  (auto cook mode) and 10-2.

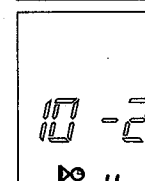
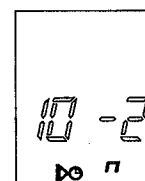
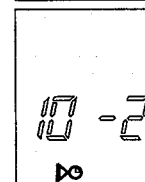
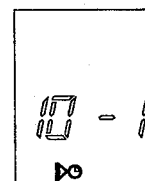
Step 3. Touch the "START" button. The timer will count down in seconds.

**NOTE:** If over cook or under cook is found after cooking, you may increase or decrease cooking time by using "PLUS/MINUS" button for next auto cook.

**EXAMPLE 1:** In case of under cook after auto cooking of casserole 0.6kg.

Follow the procedure above in step 1 and 2, touch the "PLUS(  )" button once and then "START" button to start operating. (cooking time is automatically set for longer time).

**EXAMPLE 2:** In case of over cook, follow the procedure in step 1 and 2, touch the "MINUS(  )" button once and then "START" button to start operating. (cooking time is automatically set for shorter time).



## COOKING BY CONVECTION

Convection cooking does not use microwave energy. Convection ovens are extremely efficient and heat up very quickly. The oven will reach maximum temperature in about 40 minutes. It is therefore recommended that you preheat the oven for about 5 minutes in COMBI(grill+heissluft) mode.

### COOKWARE

Convection cooking does not require special cookware. However you should take care with some cookware that you would normally use for microwaving, e.g., plastic containers, dishes, paper cups and towels etc. Only use cookware in convection mode that you would use in your traditional oven.

**NOTE:** Metal cookware such as cake tins etc. may be used with confidence in convection mode. If metal cookware or utensils are used in any other mode including microwave, damage may be caused to the oven.

### TO USE YOUR OVEN FOR CONVECTION COOKING

Step 1. Touch the "HEISSLUFT" button.

The display will show  (convection mode),  (1 stage) and 250°C.

Step 2. Turn the "ZEIT/GEWICHT" knob to the right to set cooking time.

Step 3. Set the desired cooking temperature by touching the "HEISSLUFT" button (40°C to 250°C).

FOR EXAMPLE: Cooking at 160°C for 23 minutes. Touch the "HEISSLUFT" button and turn the "ZEIT/GEWICHT" knob to the right to set 23:00. Touch the "HEISSLUFT" button four times to set temperature 160°C.

Step 4. Touch the "START" button.

Convection cooking will start and the time display counts down the cooking time.

Temperature display counts up by 10°C and shows the current cooking temperature.

Once pre-set temperature(160°C) is reached, it is automatically maintained until cooking time left has elapsed.

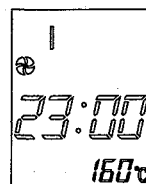
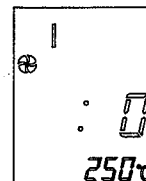
Step 5. When cooking has finished three beeps will sound, the oven will switch off and the display will return to the time of day. Open the door and remove the food.

**CAUTION:** Use oven gloves when cooking in convection mode as the oven, cookware and utensils will be hot after use.

**NOTE:** 1. The door can be opened during the cooking process by pushing the TÜRÖFFNERTASTE button. The timer will stop and cooking will only be resumed when door is closed and START button touched.

2. Fan will commence to OPERATE: When the inside of the oven is hot, blower fan may rotate to cool it down properly with the door either open or closed even though cooking is over.

3. Temperature can be set from 40°C to 250°C in 8 levels.  
(250°C, 220°C, 200°C, 180°C, 160°C, 140°C, 100°C, 40°C)



## COOKING BY COMBINATION

Combination cooking uses both microwave energy and convection heat. The microwaves cut down the cooking time while the radiant heat brings out the flavor of food and browns it, giving it an appetizing appearance. No preheating is required as the microwave energy is instantly available. Many foods can be cooked in combination mode, but it is particularly good for roast meat or poultry, baking of cakes, for pies, all dishes which are cooked with baked cheese and egg dishes.

**COOKWARE:** Use only cookware which is microwave-safe. Glass or ceramic dishes are ideal as they allow the microwaves to penetrate the food evenly.

**NOTE:** Do not use metal cookware or utensils with combination cooking as they may damage the oven.

### 1. COMBI (MICROWAVE AND CONVECTION)

Step 1. Touch the "MW+HEISSL" button.

The display will show  (microwave mode),  (convection mode),  (1 stage), 100%(power) and 250°C.

Step 2. Turn the "ZEIT/GEWICHT" knob to the right to set cooking time.

Step 3. Set the temperature by touching the "MW+HEISSL" button(40°C to 250°C).

Step 4. Touch the "LEISTUNG" button if you want to change microwave power.

FOR EXAMPLE: When cooking at 160°C for 23 minutes at microwave power 70%(MED. HIGH).

Touch the "MW+HEISSL" button.

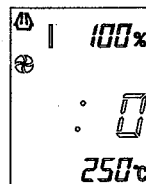
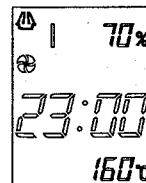
Turn the "ZEIT/GEWICHT" knob to the right to set 23:00. Touch the "MW+HEISSL" button 4 times to set temperature 160°C. Touch the "LEISTUNG" button three times to set microwave power 70%(MED.HIGH).

Step 5. Touch the "START" button.

Combi-cooking will start and the time display counts down the cooking time.

Temperature display counts up by 10°C and shows the current cooking temperature. The pre-set temperature(160°C), once reached, is automatically maintained until cooking time left has elapsed.

When cooking has finished three beeps will sound, the oven will switch off and the display will return to the time of day. Open the door and remove the food.





## COOKING BY COMBINATION




**CAUTION:** Use oven gloves when cooking in convection mode as the oven, cookware and utensils will be hot after use.

### NOTE:

1. When the oven is set to combination mode the convection action will be switched off when the pre-selected temperature has been attained, but the microwave energy will continue for the time period programmed.
2. It is a sensible precaution to check your cooking settings before leaving the oven unattended.

### 2. COMBI (MICROWAVE AND GRILL)

Step 1. Touch "MW+GRILL" button.

The display will show  (microwave mode),  (grill mode),  (1 stage) and 100%(power).

Step 2. Turn the "ZEIT/GEWICHT" knob to the right to set cooking time.

Step 3. Touch the "LEISTUNG" button if you want to change microwave power.

FOR EXAMPLE: When cooking for 20 minutes at microwave power 70%(MED.HIGH)

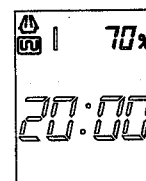
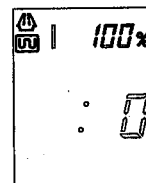
Touch the "MW+GRILL" button.

Rotate the "ZEIT/GEWICHT" knob to the right to set 20:00.

Touch the "LEISTUNG" button 3 times to set microwave power 70%(MED.HIGH).

Step 4. Touch the "START" button.

Combi-cooking will start and the time display counts down the cooking time.



### NOTE:




1. Cooking temperature cannot be arbitrarily set except for microwave power which can be controlled by using the "LEISTUNG" button.
2. Cooking utensils should be heat resistant and suitable for use with microwave energy, i.e. Glass, Ceramic or Earthenware.

### 3. COMBI (GRILL AND CONVECTION)

This function is very useful for fast pre-heating.

So, whenever you need to pre-heat the oven, this function will do it very quickly.

Step 1. Touch the "GRILL+HEISSL." button.

The display will show  (grill mode),  (convection mode),  (1 stage) and 250°C.

Step 2. Set the cooking time by rotating the "ZEIT/GEWICHT" knob to the right to set cooking time.

Step 3. Touch the "GRILL+HEISSL." button to set cooking temperature(40°C to 250°C).

Touch the "GRILL+HEISSL." button.

Rotate the "ZEIT/GEWICHT" knob to the right to set 20:00.

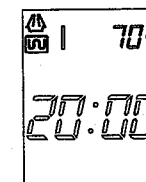
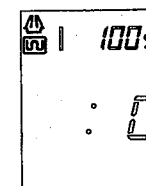
Step 4. Touch the "START" button.

Combi-cooking will start and the time display down the cooking time.

Temperature display counts up by 10°C and shows the current cooking temperature.

Pre-set temperature(250°C), if once reached, is automatically remained until cooking time left has finished.

NOTE: Cooking utensils of a type employed in a traditional oven will be satisfactory including metal cookware.





## COOKING BY GRILL

Grill cooking does not use microwave energy. It is recommended to heat up the oven before grill cooking for about 15 minutes so that you may get the Grill heater in red properly. For versatile grill cooking, you may use two kinds of metal rack in order to get the suitable temperature Grill cooking but consult your cookbook for its correct use.

### TO USE YOUR OVEN FOR GRILL COOKING



The grill function is stopped automatically as you open the door. To continue the grill process you have to close the door and press the START button.

Step 1. Touch the "GRILL" button. The display will show  (grill mode) and  (1 stage).

Step 2. Set the cooking time by rotating the "ZEIT/GEWICHT" knob to the right to set cooking time.

FOR EXAMPLE: When cooking for 20 minutes.

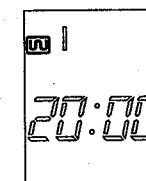
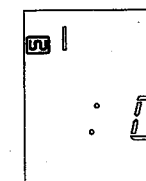
Rotate the "ZEIT/GEWICHT" knob to the right to set 20:00.

The display will show  (grill mode) and  and 20:00.

Step 3. Touch the "START" button.

Grill cooking will start and the time display counts down the cooking time.

NOTE: Cooking temperature or microwave power cannot be arbitrarily set.



## COOKING BY BARBECUE

Barbecue bar is suitable for the following models; Grill, Convection or Combination mode No. 2 (MW+Grill)

In order to operate this feature, just insert the barbecue bar without any need to touch pads.

Step 1. Insert the food at the barbecue bar.

Step 2. Close the door.

Step 3. Touch the cooking function you want (grill, convection or combination mode[MW+Grill]).

FOR EXAMPLE: When cooking on grill mode using the barbecue bar.

Follow the procedure in step 1 and step 2, and then use cooking by GRILL method.

CAUTION: Inserting the barbecue bar and operating the oven with no load can cause serious danger like sparking. Be very cautious.

NOTE: You can use barbecue bar at any time during cooking (grill, convection or combination mode [MW+Grill]).

## MULTISTAGE COOKING

1. Your combination microwave oven can be programmed to cook cold food in 3 stages, and frozen food in 4 stages by using Auto Defrost.

2. Main purpose of multistage cook.

To compensate unsatisfying cooking result from 1 stage cooking.

To complete cooking from defrosting to cooking at once without separate settings.

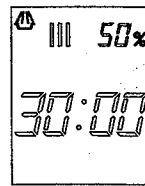
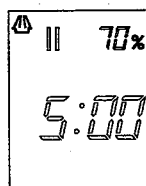
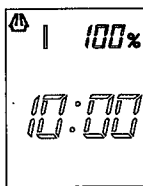
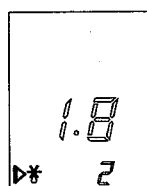
**FOR EXAMPLE 1:** 4 stage cooking of 1.8kg frozen poultry on microwave mode.

Step 1. Touch the "AUFTAUEN" button twice and set 1.8.

Step 2. Touch the "MIKROWELLE" button once and set the desired cooking time by turning the "ZEIT/GEWICHT" knob to 10 mins.

Step 3. Touch the "MIKROWELLE" button once, set the desired power level by using the "LEISTUNG" button(50%) and set the desired cooking time by turning the "ZEIT/GEWICHT" knob to 30 mins.

Step 3. Touch the "MIKROWELLE" button once, set the desired power level by using the "LEISTUNG" button(50%) and set the desired cooking time by turning the "ZEIT/GEWICHT" knob to 30 mins.



Step 5. Touch the "START" button.

### NOTE:

1. EXAMPLE 1 is a just demonstration of multistage cooking, the cooking times and power levels are also only examples.

2. Auto defrost stage is not shown in window display.

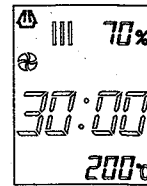
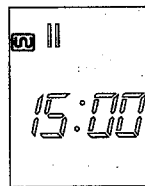
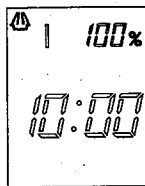
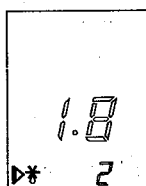
**FOR EXAMPLE 2:** 4 stage cooking of 1.8kg frozen poultry on combination mode.

Step 1. Touch the "AUFTAUEN" button twice and set 1.8.

Step 2. Touch the "AUFTAUEN" button once and set the desired cooking time by turning the "TIMER/WEIGHT" knob to 10 mins.

Step 3. Touch the "GRILL" button to set proper cooking time (15min.).

Step 4. Set the temperature by using "MW+HEISSL." button, then set microwave power by touching the "LEISTUNG" button (70%) and set the desired cooking time (30 mins) by turning the "ZEIT/GEWICHT" knob to 30:30.



Step 5. Touch the "START" button.

### NOTE:

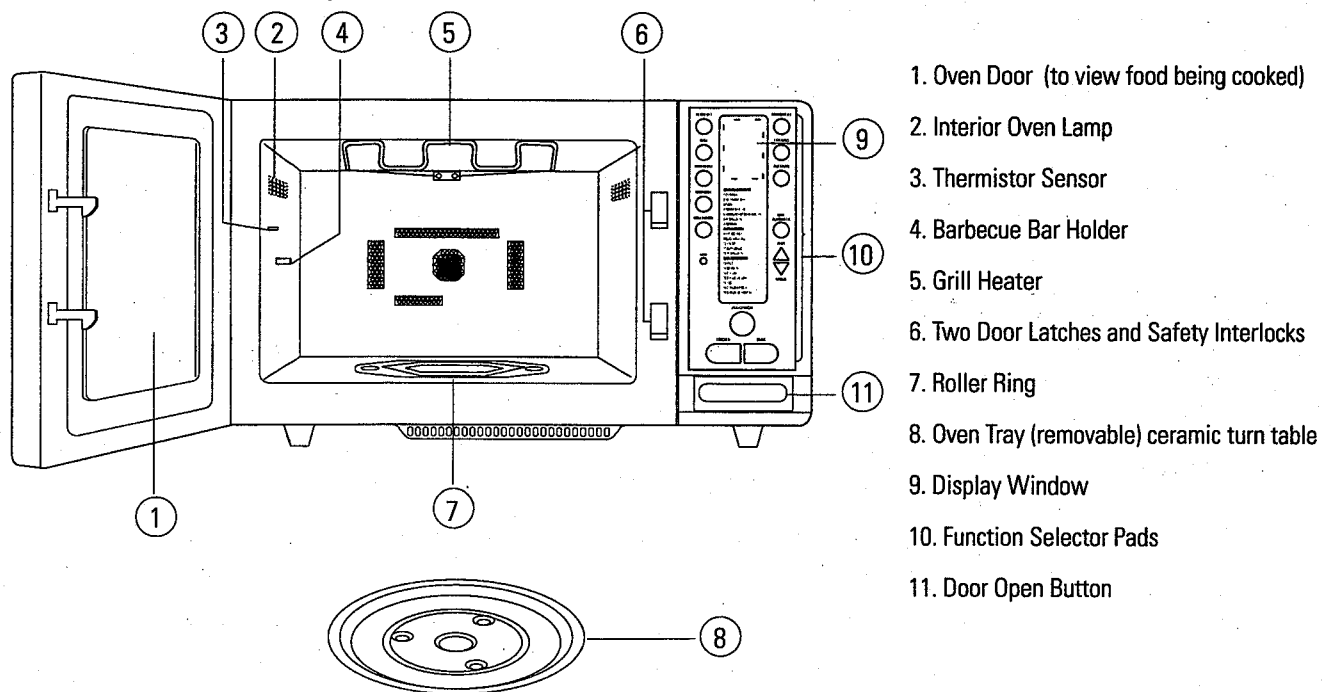
1. EXAMPLE 2 is a just demonstration of multistage cooking, the cooking times and power levels are also only examples.

2. Auto defrost stage is not shown in window display.

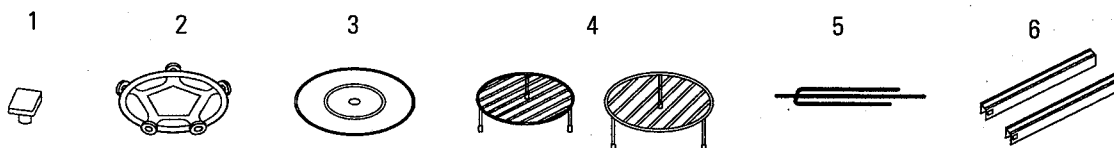
3. Combi, grill and convection is designed to have only one stage setting.

Except for microwave mode, each different stage cannot be set on the same mode.

## 5. FEATURES & ACCESSORIES



## ACCESSORIES



This combination oven is supplied with several accessories, which can be used in a variety of ways.

### 1. COUPLER

This rotates the oven tray. This should be correctly connected with the motor shaft.

### 2. ROTATING BASE

Place the Rotating base on the centre of the cavity base. This supports the turntable tray.

### 3. TURNTABLE TRAY

This should be placed on the rotating base and also the oven tray centre should be fit on the coupler. The turntable tray automatically rotates during any cooking cycle for more even cooking. The turntable tray serves as the main cooking surface. It is easily removed for cleaning.

NOTE: THE OVEN SHOULD NOT BE OPERATED WITHOUT THE COUPLER, BASE AND TURNTABLE.

### 4. METAL RACKS

The rack can be used for cooking two dishes at the same time. A small dish may be placed on the turntable tray and a second dish on the rack. The metal racks can be used in grill, convection or combination cooking.

### 5. BARBECUE BAR

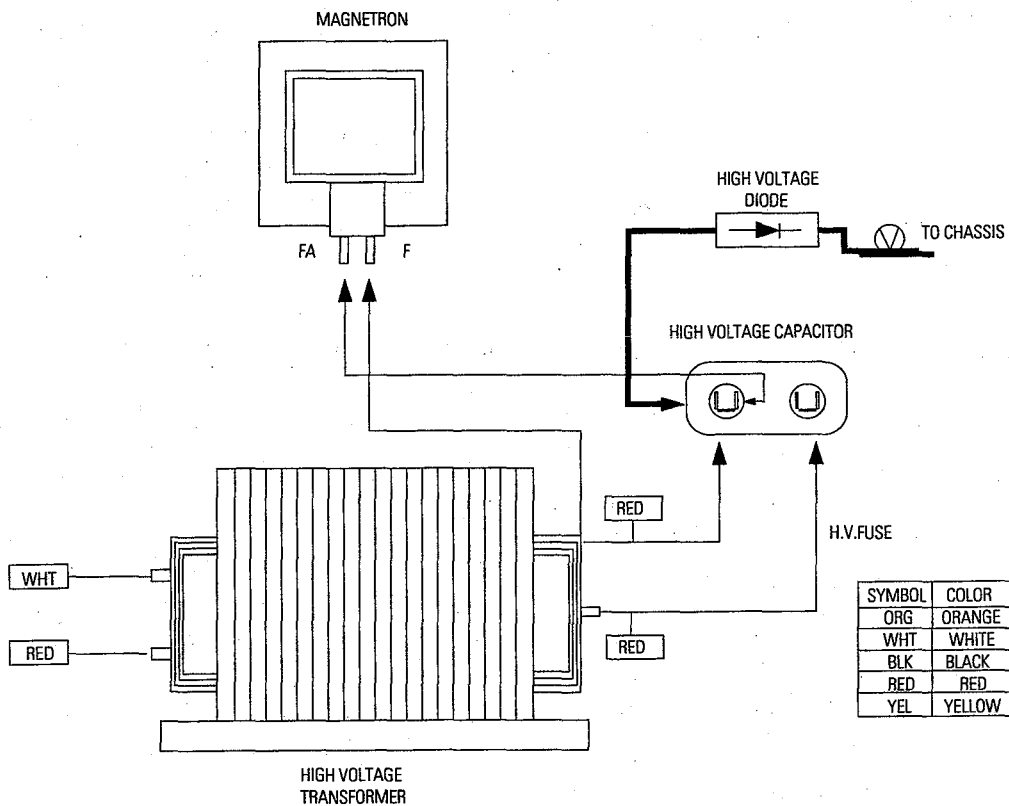
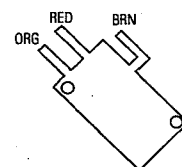
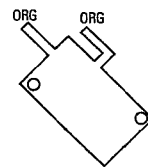
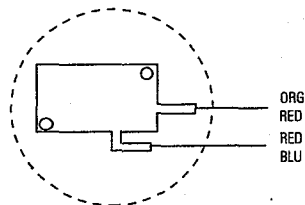
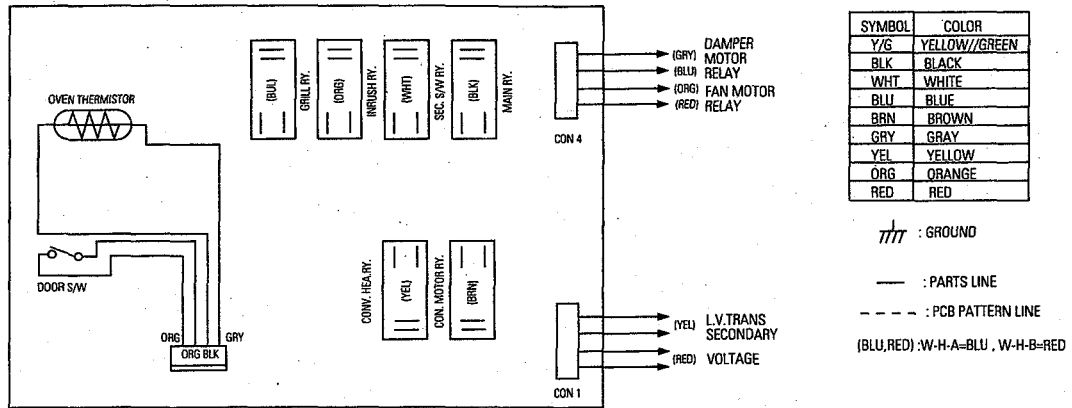
Use only for barbecue cooking

NOTE: Insert food with balance into the barbecue bar.

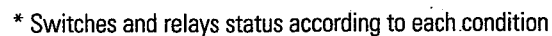
### 6. HOLDER

After barbecue cooking, use to prevent danger from hot heat when taking out food.

## 7. WIRING DIAGRAM



**RE-1280**



Condition ITEM	DOOR OPEN	DOOR CLOSE	MICRO- WAVE	GRILL	CONVEC- TION	MWO+ GRILL	MWO+ CONV.	GRILL+ CONV.
PRI.S/W	OPEN	CLOSE	CLOSE	CLOSE	CLOSE	CLOSE	CLOSE	CLOSE
MON.S/W	CLOSE	OPEN	OPEN	OPEN	OPEN	OPEN	OPEN	OPEN
MAIN RY	ON	OFF	ON	ON	ON	ON	ON	ON
SEC.S/W RY	OFF	OFF	ON	OFF	OFF	ON	ON	OFF
GRILL RY	OFF	OFF	OFF	ON	OFF	ON	OFF	ON
CONV. HEA.RY	OFF	OFF	OFF	OFF	ON	OFF	ON	ON
FAN.MTR.RY	OFF	OFF	ON	ON	ON	ON	ON	ON
DAMPER RY	OFF	OFF	OFF	ON	ON	ON	ON	ON
CONV.MTR.RY	OFF	OFF	OFF	ON	ON	ON	ON	ON

## 8. CAUTIONS OBSERVED WHEN SERVICING

Unlike many other appliances, the microwave oven is high-voltage, high current equipment. Though it is free from danger in ordinary use, extreme care should be taken during repair.

### PRECAUTION

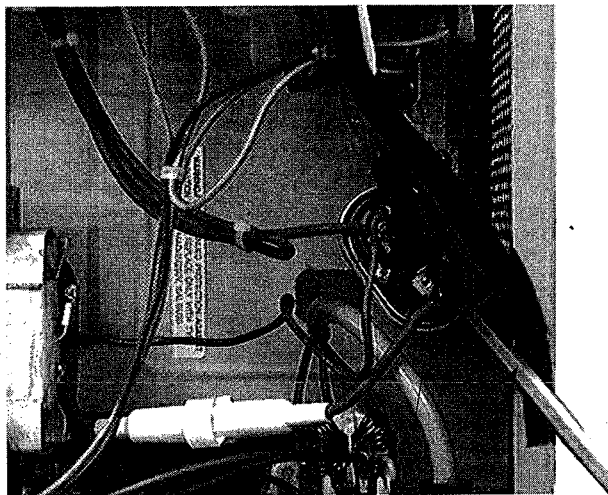
Servicemen should remove their watches whenever working close to or replacing the magnetron.

#### 8-1. Check the ground.

Do not operate on a 2-wire extension cord. The microwave oven is designed to be used when grounded. It is imperative, therefore, to make sure that the oven should be grounded prior to repair.

#### 8-2. Warning about the electric charge in the high voltage capacitor

As an electric charge in the high voltage capacitor remains for about 30 seconds after operation stops, short the current between the oven chassis and the negative terminal of the high voltage capacitor, by using a screwdriver before replacing or checking parts.



☞ : Touch chassis side first then short to the high voltage capacitor terminal by using a screwdriver or jumper wire.

#### 8-3. When parts must be replaced, remove the power plug from the outlet

#### 8-4. When the 15 Amp fuse is blown out by the operation of the interlock Monitor switch:

- (A) Replace the primary, door sensing and interlock monitor switches. This is mandatory. Refer to page 11 for the necessary adjustments of these switches.
- (B) When replacing the fuse, confirm that it has the appropriate rating for this model.

#### 8-5. Avoid inserting any foreign materials, etc. through any hole in the unit during operation.

Never insert any foreign materials or any other metal object through the lamp hole on the cavity or any other holes or gaps, because such objects may work as an antenna and cause microwave leakage.

#### 8-6. Confirm after repair:

- (A) After repair or replacement of parts, make sure that screws of the oven are neither loose nor missing; to prevent the microwave leakage.
- (B) Make sure that all electrical connections are tight before inserting the plug in to the wall outlet.
- (C) Check for radiation leakage. (Refer to the procedure for measuring energy leakage in page 12.)

### PRECAUTION

There exists HIGH VOLTAGE ELECTRICITY with high current capabilities in the circuits of the HIGH VOLTAGE TRANSFORMER secondary and filament terminals. It is extremely dangerous to work on or near these circuits with the oven energized.

DO NOT measure the voltage in the high voltage circuit including filament voltage of magnetron.

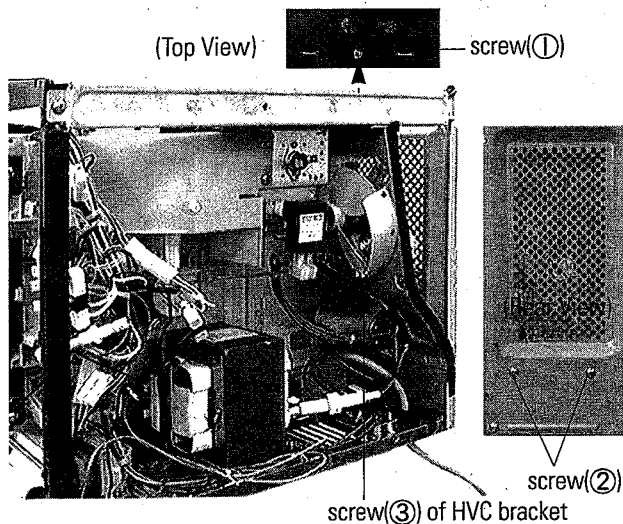
### PRECAUTION

Never touch any circuit wiring with your hand nor with an insulated tool during operation.

## 9. DISASSEMBLY & ASSEMBLY

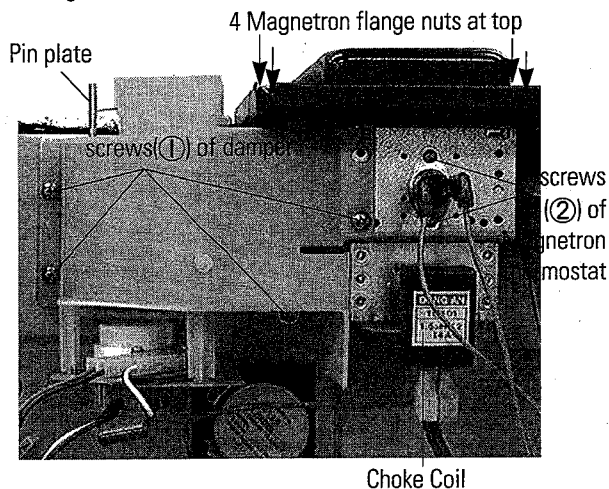
### 9-1. Replacement of Fan Motor and HVCapacitor

- 1) Remove out panel.
- 2) Disconnect all connectors and terminals.
- 3) Remove a screw(①) securing the fan motor bracket.
- 4) Remove two screws(②) at back plate.
- 5) Remove a screw(③) securing HVC bracket for removal of HVC.



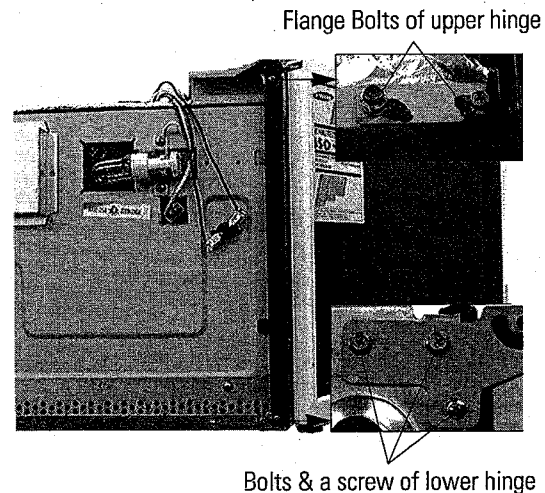
### 9-2. Replacement of Damper, Magnetron

- 1) After removing out panel and magnetron supporter, disconnect all the terminals and connectors from magnetron and damper assembly.
  - 2) Remove four screws(①) securing damper Ass'y.
  - 3) Remove two screws(②) securing magnetron thermostat.
  - 3) Remove four magnetron flange nuts at top.
- ☞ : 1) When removing the magnetron, make sure that its antenna does not hit any adjacent parts, or it may be damaged.
- 2) when replacing the magnetron, be sure to remount the magnetron gasket in the correct position and make sure the gasket is in good condition.
  - 3) Never install magnetron without metallic gasket plate, which should be packed with each magnetron to prevent microwave leakage.
  - 4) Check microwave leakage after repair work is carried out on magnetron.



### 9-3. Replacement of Door Assembly

Remove hex bolts securing the upper hinge and lower hinge. Then remove the door Ass'y.



※ After replacement of the defective component parts of the door, reassemble it and follow the instructions below for proper installation and adjustment so as to prevent an excessive microwave leakage.

- (1) When mounting the door to the oven, be sure to adjust the door parallel to the bottom line of the oven face plate by moving the upper hinge and lower hinge in the direction necessary for proper alignment.
- (2) Adjust so that the door has no play between the inner door surface and oven front surface. If the door assembly is not mounted properly, microwave may leak from the clearance between the door and oven.
- (3) Perform the microwave leakage test.

### 9-4. Replacement of H.V. Transformer

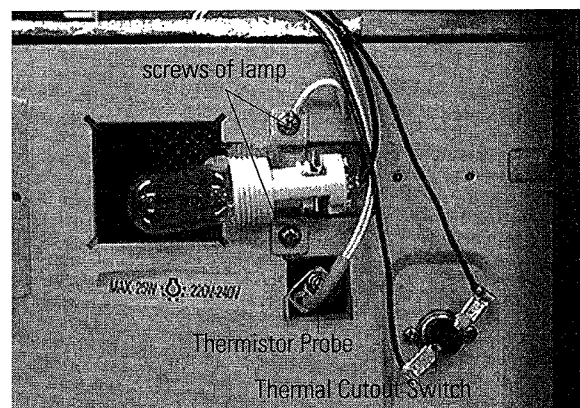
- 1) Discharge the high voltage capacitor.
- 2) Disconnect all the leads from the high voltage transformer.
- 3) Remove the mounting bolts on the high voltage transformer.
- 4) When replacing, connect the leads correctly and firmly.

### 9-5. Replacement of Fuse

Disconnect the oven from the power source and remove the 15A fuse in the fuse holder in noise filter Ass'y.

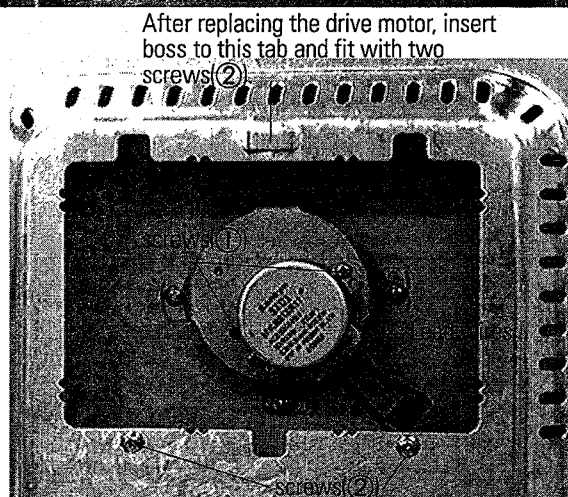
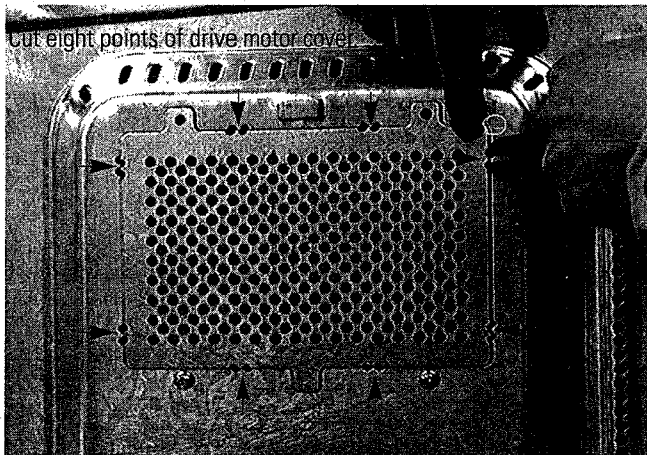
### 9-6. Replacement of Lamp

- 1) Remove out panel.
- 2) Remove two screws securing lamp holder.



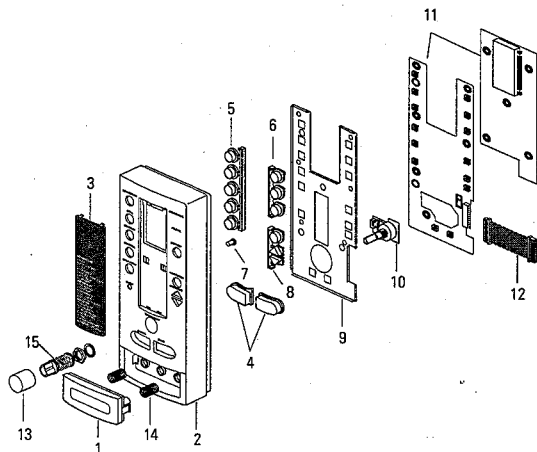
### 9-7. Replacement of Drive Motor

- 1) Take out the glass tray, guide roller and coupler from cavity.
- 2) Turn the oven upside down to replace the drive motor.
- 3) Cut out the drive motor cover with nipper and remove it from the base plate.
- 4) Disconnect all the lead wires from the drive motor.
- 5) Remove screws(①) securing the drive motor to the cavity.
- 6) Take out the drive motor.
- 7) When replacing the drive motor, be sure to remount it in the correct position.



### 9-8. Replacement of Control Circuit Board

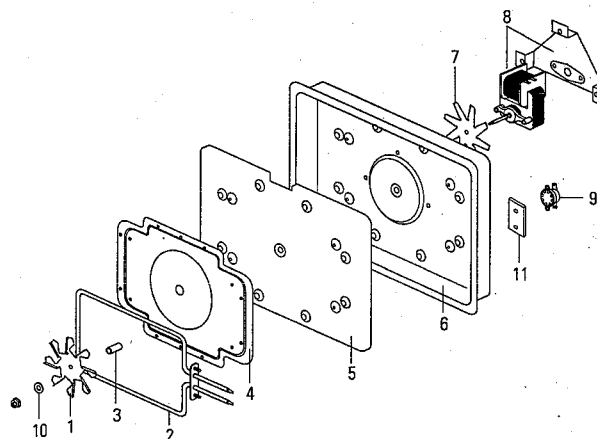
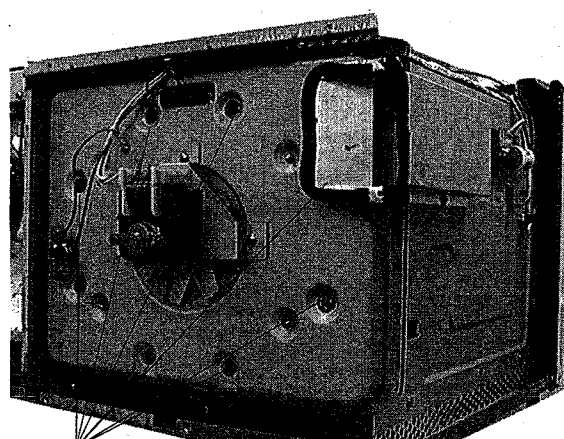
- ⚡ : Be sure to ground any static electric charge in your body and never touch the touch control circuitry.



- 1) Remove 3 screws securing control panel Ass'y to oven front.
- 2) Remove screws holding control panel bracket '7' to control panel '1'.
- 3) Disconnect film connector from PCBoard assembly '9'.
- 4) Remove 3 screws securing PCB Ass'y.
- 5) Pull out membrane'4', window display'5' and door button'2'.

### 9-9. Replacement of Casing Ass'y and Convection Heater

- 1) Remove out panel and back panel.
- 2) Disconnect all connectors and terminals.
- 3) Remove air duct and support-back.
- 4) Remove screws(①) securing convection heater Ass'y.
- 5) Remove nut'2', blade fan'3', spring washer'4' and bushing'5'.
- 6) Remove convection assembly '11', '12' and cooling fan'10'.
- 7) Remove four screws '6'.
- 8) Remove heater cover '7' '9'. Then heater adiabatic '8' will be disassembled.





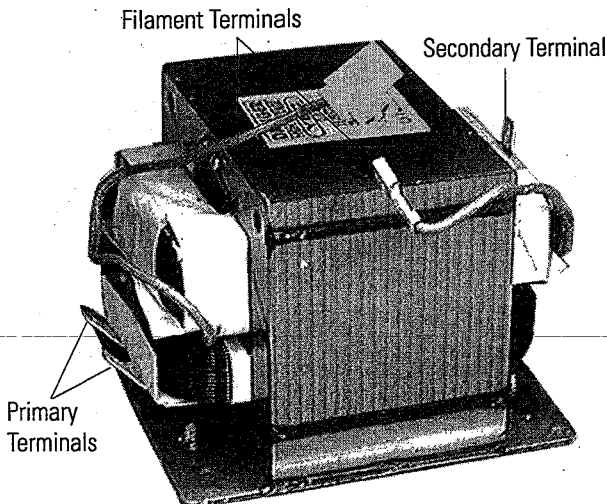
# 10. COMPONENT TEST PROCEDURE

## PRECAUTION

1. High voltage is present at the high voltage terminal of the high voltage transformer during any cook cycle.
2. It is neither necessary nor advisable to attempt measurement of the high voltage.
3. Before touching any oven components, or wiring, always unplug the oven from its power source and discharge the high voltage capacitor.

### 10-1. High Voltage Transformer

- 1) Remove connectors from the transformer terminals and check continuity.
- 2) Normal resistance readings should be as follows:  
 Secondary.....Approx.  $79\Omega$   
 Filament.....Approx.  $0\Omega$   
 Primary.....Approx.  $1.38\Omega$   
 (Room temperature =  $20^{\circ}\text{C}$ )



### 10-2. Low Voltage Transformer

The low voltage transformer is located on the control circuit board.

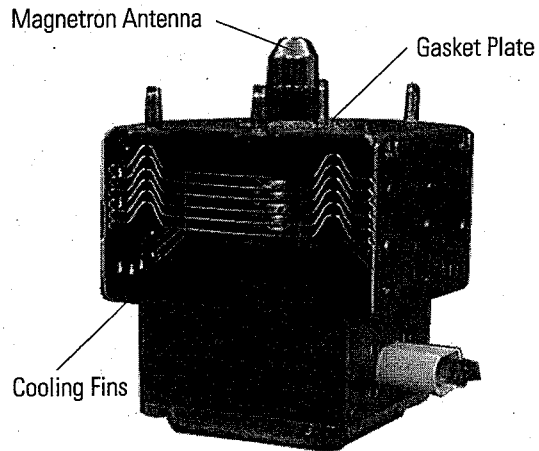
- 1) Remove the low voltage Transformer from the PCB Ass'y and check continuity.
- 2) Normal resistor reading should be as follows.

Terminals	Resistance
1~2	$322.7\Omega$
3~4	$1.868\Omega$
5~6	$0.840\Omega$

### 10-3. Magnetron

Continuity checks can only indicate an open filament or a shorted magnetron. To diagnose an open filament or shorted magnetron;

- 1) Isolate the magnetron from the circuit by disconnecting its leads.
- 2) A continuity check across the magnetron filament terminals should indicate one ohm or less.
- 3) A continuity check between each filament terminal and magnetron case should read open.



### 10-4. High Voltage Capacitor

- 1) Check continuity of the capacitor with meter set at the highest ohm scale.
- 2) Once the capacitor is charged, a normal capacitor shows continuity for a short time, and then indicates  $9M\Omega$ .
- 3) A shorted capacitor will show continuous continuity.
- 4) An open capacitor will show constant  $9M\Omega$ .
- 5) Resistance between each terminal and chassis should read infinite.

### 10-5. High Voltage Diode

- 1) Isolate the diode from the circuit by disconnecting its leads.
- 2) With the ohm-meter set at the highest resistance scale, measure the resistance across the diode terminals. Reverse the meter leads and read the resistance. A meter with 6V, 9V or higher voltage batteries should be used to check the front-to-back resistance of the diode, otherwise an infinite resistance may be read in both directions. The resistance of a normal diode will be infinite in one direction and several hundred  $K\Omega$  in the other direction.

### 10-6. Main Relay and Power Control Relay

The relays are located on the PCB Ass'y.

- 1) Isolate the relays from the main circuit by disconnecting the leads.
- 2) operate the microwave oven with a water load in the oven and the power level set to high.
- 3) Check continuity between terminals of the relays after the start pad is pressed.

# 11. MEASUREMENTS & ADJUSTMENTS

## Precaution

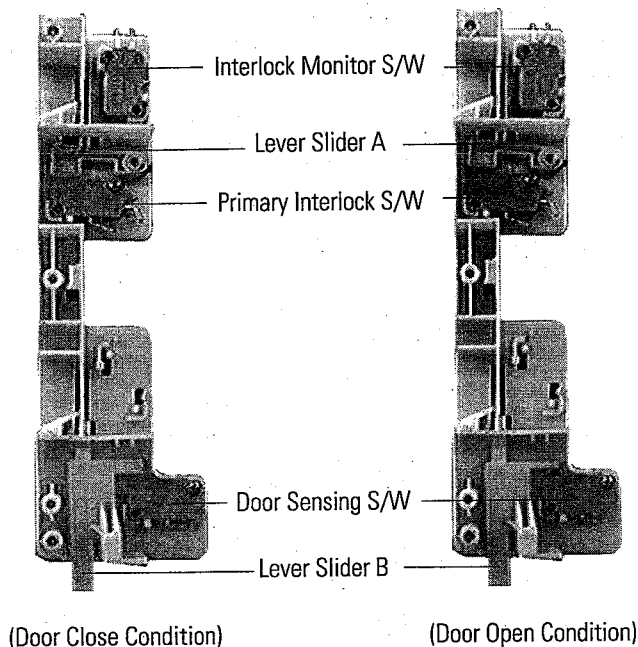
For continued protection against radiation hazard, replace parts in accordance with the wiring diagram and be sure to use the correct part number for the following switches.: Primary and secondary interlock switches and the interlock monitor switch all together. Then follow the adjustment procedures below. After repair and adjustment, be sure to check the continuity of all interlock switches and the interlock monitor switch.

## 11-1. Adjustment of Primary Switch, Door Sensing Switch and Monitor Switch

- 1) When mounting Primary switch and interlock Monitor switch to Latch Body, consult the figure below.  
NOTE: No specific adjustment during installation of Primary switch and Monitor switch to the latch body is necessary.
- 2) When mounting the Latch Body to the oven assembly, adjust to the Latch Body by moving it so that the oven door will not have any play in it. Check for play in the door by pulling the door assembly. Make sure that the latch keys move smoothly after adjustment is completed. Completely tighten the screws holding the Latch Body to the oven assembly.
- 3) Reconnect to Monitor switch and check the continuity of the monitor circuit and all latch switches again by following the components test procedures.

	Door Open	Door Closed
Primary switch	∞	0
Monitor switch (COM-NC)	0	∞
Monitor switch (COM-NO)	∞	0
Door Sensing S/W	∞	0

Please confirm that the gap between the switch housing and the switch actuator is no more than 0.5mm when door is closed.



## 11-2. Output Power of Magnetron

The output power of the magnetron can be simply measured by performing a water temperature rise test.

### Equipment needed for the test:

- \* One 1-liter cylindrical borosilicate glass vessel (Outside diameter of 190mm)
- \* One glass thermometer with mercury column

NOTE: Check line voltage under load. Low voltage will lower the magnetron output. Make all temperature and time tests with accurate equipment.

- (A) Fill the one liter glass vessel with one liter of water.
- (B) Stir water in glass vessel with thermometer and record glass vessel's temperature as T1. ( $10 \pm 1^\circ\text{C}$ )
- (C) After moving the water into another glass vessel, place it on the center of the cooking tray. Set the oven to high power and operate for 49 seconds exactly. (3 seconds included as a holding time of magnetron oscillation)
- (D) When heating is finished, stir the water again with the thermometer and measure the temperature rise as T2.
- (E) Subtract R1 from T2. This will give you the water temperature rise. ( $\Delta T$ )
- (F) The output power is obtained by the following formula;

$$\text{Output Power} = \frac{4.187 \times 1000 \times \Delta T}{46}$$

46 : Heating Time (sec)

4.187 : Coefficient for Water

1000 : Water (cc)

$\Delta T$  : Temperature Rise ( $T_2 - T_1$ )

### \* Output (W) = 91 x $\Delta T$

(F) Normal temperature rise for this model is  $9^\circ\text{C}$  to  $11^\circ\text{C}$  at 'HIGH'.

NOTE 1: Variations or errors in the test procedure will cause a variance in the temperature rise. Additional power test should be made if temperature rise is marginal.

NOTE 2: Output power in watts is computed by multiplying the temperature rise (step E) by a power factor of 91 in case of centigrade temperature.

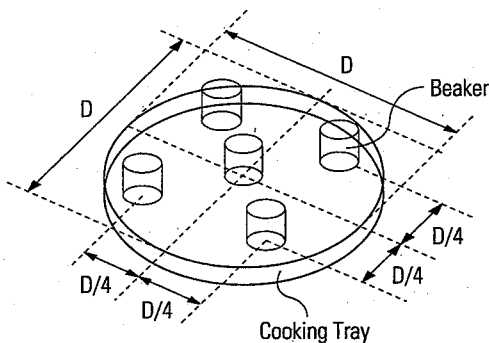
## 11-3. Microwave Heat Distribution - Heat Evenness

The microwave heat distribution can be checked by indirectly measuring the water temperature rises at certain positions in the oven as directed below.

- (1) Prepare five beakers made of 'Pyrex', having 100 milliliters capacity each.
- (B) Measure exactly 100 milliliters of water load with a measuring cylinder and pour it into each beaker.
- (C) Measure the temperature of each water load. (Readings shall be taken to the first place of decimals.)
- (D) Put each beaker in place on the cooking tray as illustrated in Figure below and start heating.
- (E) After heating for 2 minutes, measure the temperatures of water in each beaker.
- (F) Microwave heat distribution rate can be obtained by the following formula.

$$\text{Heat Distribution} = \frac{\text{Minimum Temperature Rise}}{\text{Maximum Temperature Rise}} \times 100(\%)$$

The result should exceed 65%.



### CAUTION

#### MICROWAVE RADIATION

PERSONNEL SHOULD NOT BECOME EXPOSED TO MICROWAVE RADIATION FROM MICROWAVE GENERATOR OR OTHER PARTS CONDUCTING MICROWAVE ENERGY.

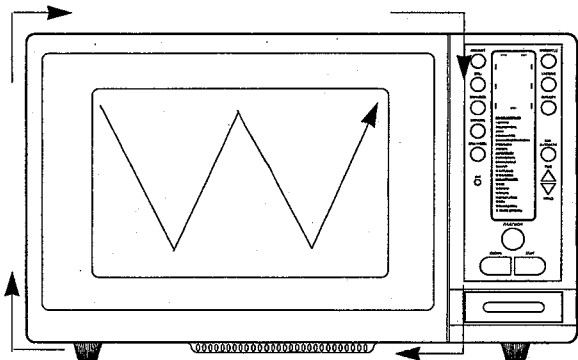
## 12. LEAKAGE MEASURING PROCEDURE

### 12-1. Equipment

- \* Microwave Energy Survey Meter
- \* 600cc glass beaker
- \* Mercurial or digital thermometer 100°C or 212°F

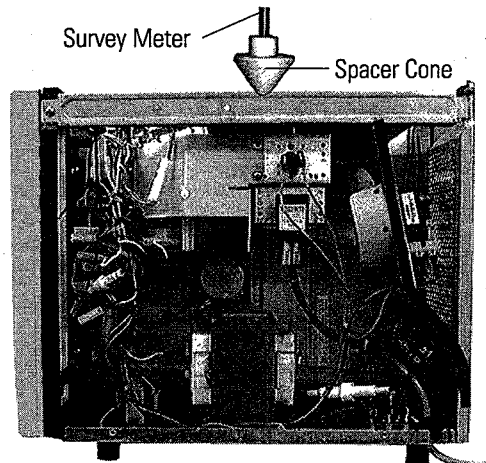
### 12-2. Procedure for Measurement of Microwave Energy Leakage

- 1) Pour  $275 \pm 15$ cc of  $20 \pm 5^\circ\text{C}$  ( $68 \pm 9^\circ\text{F}$ ) water in a beaker which is graduated to 600cc, and place the beaker in the center of the oven.
- 2) Start to operate the oven and measure the leakage by using a microwave energy survey meter.
- 3) Set survey meter with dual ranges to 2,450MHz.
- 4) When measuring the leakage, always use the 2 inch spacer cone with the probe. Hold the probe perpendicular to the cabinet door. Place the spacer cone of the probe on the door and/or cabinet door seam and move along the seam, the door viewing window and the exhaust openings moving the probe in clockwise direction at a rate of 1 inch/sec. If the leakage testing of the cabinet door seam is taken near a corner of the door, keep the probe perpendicular to the areas making sure that the probe end at the base of the cone does not get closer than 2 inches to any metal. If it gets closer than 2 inches, erroneous readings may result.
- 5) Measured leakage must be less than  $5\text{mW}/\text{cm}^2$ , after repair or adjustment.



### 12-3. Check for Microwave Energy Leakage with Outer Panel Removed.

- 1) Remove the outer panel.
- 2) Pour  $275 \pm 15$ cc of  $20 \pm 5^\circ\text{C}$  ( $68 \pm 9^\circ\text{F}$ ) water in a beaker which is graduated to 600cc, and place the beaker in the center of the oven.
- 3) Start to operate the oven at the highest power level.
- 4) Set survey meter with dual ranges to 2,450MHz.
- 5) By using the survey meter and spacer cone as described above, measure around the opening area of magnetron, the surface of the air guide and the surface of the wave guide as shown in the following photo but avoid the high voltage components. The meter should read less than  $5\text{mW}/\text{cm}^2$ .



### WARNING

AVOID THE HIGH VOLTAGE COMPONENTS.

### 12-4. Note on Measurement

- 1) Do not exceed the limited scale.
- 2) The test probe must be held on the grip of the handle, otherwise a false reading may result when the operator's hand is between the handle and the probe.
- 3) When high leakage is suspected, do not move the probe horizontally along the oven surface; this may cause damage to the probe.
- 4) Follow the recommendation of the manufacturer of the microwave energy survey meter.

### 12-5. Record keeping and notification after measurement

- 1) After adjustment and repair of a radiation preventing device, make a repair record for the measured values, and keep the data.
- 2) If the radiation leakage is more than  $5\text{mW}/\text{cm}^2$  after determining that all parts are in good condition, functioning properly and the identical parts are replaced as listed in this manual, notify that fact to;

**SAMSUNG ELECTRONICS GMBH(SEG)**  
**DAIMLERSTRABE 6-8**  
**D-6374 STEINBACH /TS.**  
**WEST GERMANY**

- 12-6. At least once a year have the Microwave Energy Survey Meter checked for accuracy by its manufacturer.

## 13. Troubleshooting

### PRECAUTION

1. CHECK GROUNDING BEFORE CHECKING FOR TROUBLE.
2. BE CAREFUL OF THE HIGH VOLTAGE CIRCUIT.
3. DISCHARGE THE HIGH VOLTAGE CAPACITOR.
4. WHEN CHECKING THE CONTINUITY OF THE SWITCHES OR TRANSFORMER, DISCONNECT ONE LEAD WIRE FROM THESE PARTS AND THEN CHECK CONTINUITY WITHOUT THE POWER SOURCE ON. TO DO OTHERWISE MAY RESULT IN A FALSE READING OR A DAMAGE TO YOUR METER.
5. DO NOT TOUCH ANY PART OF THE CIRCUIT OR THE TOUCH CONTROL CIRCUIT BOARD, SINCE STATIC ELECTRIC DISCHARGE MAY DAMAGE THIS CONTROL PANEL. ALWAYS TOUCH GROUND WHILE WORKING ON THIS TO DISCHARGE ANY STATIC CHARGE BUILT UP IN YOUR BODY.

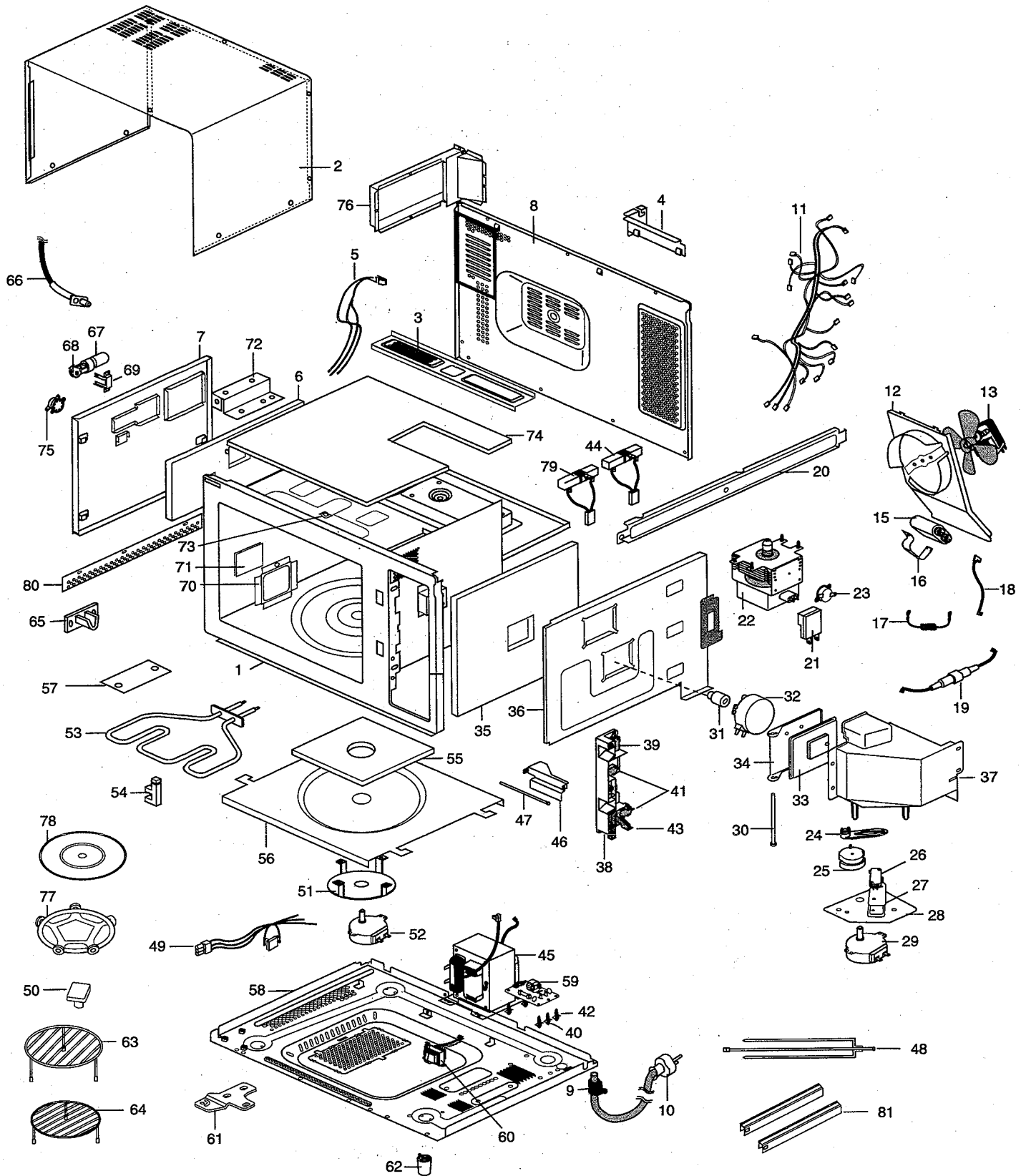
First of all operate the microwave oven by observing the correct operating procedures by time cooking in order to find the exact cause of any trouble.

#### 13-1. Problems not Related to Defects of the Oven

	SYMPTOM	CAUSE	CORRECTIONS
1	Oven is dead. Fuse is OK. No display and no operation at all.	<ol style="list-style-type: none"> <li>1. Open or loose lead wire harness</li> <li>2. Open thermal cutout(Magnetron)</li> <li>3. Open low voltage transformer</li> <li>4. Defective Ass'y PCB</li> </ol>	<p>Check fan motor when thermal cutout is defective.</p> <p>Check Ass'y PCB when LVT is defective.</p>
2	No display and no operation at all. Fuse is blown.	<ol style="list-style-type: none"> <li>1. Shorted lead wire harness</li> <li>2. Defective primary latch switch(NOTE 1)</li> <li>3. Defective monitor switch (NOTE1)</li> <li>4. Shorted HVCapacitor</li> <li>5. Shorted HVTransformer (NOTE2)</li> </ol> <p>NOTE 1: All of these switches must be replaced at the same time. (refer to adjustment instructions) Check continuity of power relay contacts and if it has continuity, replace power relay also.</p> <p>NOTE 2: When HVTransformer is replaced, check diode and magnetron also.</p>	Check adjustment of primary, interlock monitor, door sensing switch.
3	Oven does not accept key input(Program)	<ol style="list-style-type: none"> <li>1. Key input is not in-Sequence</li> <li>2. Open or loose connection of membrane key pad to Ass'y PCB</li> <li>3. Shorted or open membrane panel</li> <li>4. Defective Ass'y PCB</li> </ol>	<p>Refer to operation procedure.</p> <p>Replace PCB main.</p>
4	Timer starts countdown but no microwave oscillation. (No heat while oven lamp and fan motor turn on.)	<ol style="list-style-type: none"> <li>1. Off-alignment of latch switches</li> <li>2. Open or loose connection of high voltage circuit especially magnetron filament circuit</li> </ol> <p>NOTE: Large contact resistance will bring lower magnetron filament voltage and cause magnetron to lower output and/or intermittent oscillation.</p> <ol style="list-style-type: none"> <li>3. Defective high voltage components H.V.Transformer H.V.Capacitor H.V.Diode, H.V.Fuse Magnetron</li> <li>4. Open or loose wiring of power relay</li> <li>5. Defective primary latch switch</li> <li>6. Defective power relay or Ass'y PCB</li> </ol>	<p>Adjust door and latch switches.</p> <p>Check high voltage component according to component test procedure and replace if it is defective.</p> <p>Replace PCB main.</p>

	SYMPTOM	CAUSE	CORRECTIONS
5	Oven lamp and fan motor turn on	1. Misadjustment or loose wiring of primary latch switch 2. Defective primary latch switch	Adjust door and latch switches.
6	Oven can program but timer does not start.	1. Open or loose wiring of secondary interlock switch 2. Off-alignment of primary interlock 3. Defective secondary interlock S/W	Adjust door and interlock switches.
7	Microwave output is low. Oven takes longer time to cook food.	1. Decrease in power source voltage. 2. Open or loose wiring of magnetron filament circuit. (Intermittent oscillation)) 3. Aging change of magnetron	Consult electrician.
8	Fan motor turns on when plugged in	Loose wiring of door sensing switch	Check wire of door sensing switch.
9	Oven does not operate and return to the plugged in mode.	Defective Ass'y PCB	Replace PCB main.
10	Loud buzzing noise can be heard.	1. Loose fan and fan motor 2. Loose screws on H.V.Transformer 3. Shorted H.V.Diode	Tighten screws of fan motor. Tighten screws of H.V.Transformer. Replace H.V.Diode.
11	Turntable motor does not rotate.	1. Open or loose wiring of turntable motor. 2. Defective turntable motor.	Replace turntable motor.
12	Oven stops operation during cooking	1. Open or loose wiring of primary interlock switch 2. Operation of thermal cutout(Magnetron)	Adjust door and latch switches.
13	Sparks	1. Metallic ware or cooking dishes touching on the oven wall. 2. Ceramic ware trimmed with gold or silver powder also causes sparks.	Educate your customer.  Do not use any type of cookware with metallic trimming.
14	Uneven cooking	Uneven intensity of microwave due to its characteristics.	Wrap thinner parts of the food with aluminum foil. Use plastic wrap or cover with a lid. Stir once or twice while cooking foods such as soup, cocoa, or milk.
15	Clock noise from the turntable motor when it starts to operate.	The noise may result from the motor.	Replace turntable motor.

# Exploded View - Cavity Parts



## Parts List - Main Parts

Ref. No.	Parts No.	Description / Specification	Q'ty	Remark
1		ASSY CAVITY-C;RE-909CG	1	S. N. A
2	76401-228-310	PANEL-OUTER;SC-WH-01-B (RE-909CG)	1	WHITE
2	76401-228-340	PANEL-OUTER;RE-1200 BRN-A COATING	1	BROWN
3	76613-234-910	SUPPORTER-BACK;SECC T0.6	1	
4	76613-240-920	ASSY-COVER AIR(B);RE-1200/1280/1270	1	
5	79203-0335-00	ASSY WIRE HARNESS-B;230V RE-1280(SAW) AMFO	1	
6	70243-0002-00	ADIABATIC-L;T15 W351 L136 EGF-E3019-PBS	1	
7	76052-216-410	COVER-ADIABATIC(L);SBHG1-M T0.5	1	
8	79361-0409-00	ASSY-BACK PANEL;RE-1280	1	
9	76639-202-311	BUSHING CORD;IC002	1	
10	73059-861-306	POWER-CORD; H05VVF 3G 1.5(1410)	1	
11	79202-0334-00	ASSY WIRE HARNESS-A;230V RE-1280(SAW) AMFO	1	
12	79292-214-210	ASSY COVER BLOWER;RE-909CG	1	
13	76822-0046-00	MOTOR-FAN;AMM90-004AUEB 230V50HZ MIN2500RPM	1	
15	71563-200-110	CAPACITOR-H.V;SCH-2121134B1	1	
16	76614-259-310	BRACKET-H.V.C;SECC T0.6	1	
17	72169-219-108	DIODE-H.V;HVR-1X-32B-12	1	
18	79223-0001-00	ASSY WIRE LEAD-B;L540 2GA2	1	
19	79163-0196-00	ASSY-H.V.FUSE;THV060T-0800-0 60/70 SCREW	1	
20	76613-234-710	SUPPORTER-MGT;SECC T0.8	1	
21	79199-204-248	M C CHOKE COIL;TC-101	1	
22	77059-0014-00	MAGNETRON;OM75P(10)ESS	1	
23	73589-001-042	SW-THERMO;PW2N(160/60)	1	
24	75253-207-110	LEVER-DAMPER;POM-KEP 44G	1	
25	71583-0001-00	CAM;POM(KEP F20-02) RE-909CG	1	
26	73579-203-265	SW-MICRO;VP331A-OD(PT2)	1	
27	73934-209-910	SHEET-INSK K;POLYESTER T0.5X45X24	1	
28	76613-235-410	BRACKET-DAMPER MOTOR;SECC T0.8	1	
29	74769-221-690	MOTOR-SYNCHRONOUS;M2LB49ZR02 (DAMPER-MOTOR)	1	
30	77364-241-910	PIN-DAMPER;MSWR 3	1	
31	76464-223-310	COUPLER-BARBECUE;AL	1	
32	74769-221-708	MOTOR-SYNCHRONOUS;MULJ24ZR03 (SPIT-MOTOR)	1	
33	76463-218-210	SILICON-DAMPER;SILICONE	1	
34	76613-234-810	DAMPER-PLATE;SECC T0.6	1	
35	70243-0003-00	ADIABATIC-R;T10 W346 L282 EGF-E3019-PBS	1	
36	76052-216-310	COVER-ADIABATIC(R);SBHG1-M T0.5	1	
37	75402-202-110	COVER-DAMPER;NYLON#66-2411GF 143.7G	1	
38	76462-212-610	BODY LATCH;NYLON#66 2411GF6 HB NTR	1	
39	73579-203-278	SW-MICRO;VP-531A-OF(T85)	1	
40	76659-200-516	SUPPORT-P.C.B;DACN-6N	1	
41	73579-203-207	SW-MICRO;VP533A-OF P.S(T85)	2	
42	76659-200-518	SUPPORT-P.C.B;DASS-T9N	4	
43	76463-216-810	LEVER-SLIDER(B);NYLON#66	1	
44	79269-0201-00	ASSY-RESISTOR;RE-1280(SAW) 10W 30-J	1	
45	77202-0071-00	TRANS-H.V;Y247NTC RE-1270 230V 50HZ AC2210/3.05V	1	
46	76613-235-810	BRACKET-DOOR LEVER;SECC T1.5	1	
47	77364-241-910	PIN-DAMPER;MSWR 3	1	
48	77363-201-110	SHAFT-BARBECUE;RE-909CG	1	
49	79194-228-610	ASSY WIRE HARNESS-C;RE-909CG	1	
50	75143-200-510	COUPLER;SILICON KMC401	1	
51	76613-239-710	BRACKET-COVER MOTOR;SECC T0.8 RE-909CG	1	
52	74769-221-606	MOTOR-SYNCHRONOUS;MVLB51ZR11 220V/240V 50HZ (D/M)	1	
53	76402-0007-00	HEATER-GRILL;D7 230V5.6A 1300W RE-1250	1	

\* S.N.A. : SERVICE NOT AVAILABLE

## Exploded View & Parts List - Main Parts

Ref. No.	Parts No.	Description / Specification	Q'ty	Remark
54	76654-226-220	SUPPORTER-HEATER;ALUMINA N92	1	
55	70243-0004-00	ADIABATIC-L;T10 W180 L180 EGF-E3019-PBS	1	
56	76052-216-210	COVER-ADIABATIC(L);SBHG1-M T0.5	1	
57	76474-204-210	PLATE-CEILING;MICA SHEET T0.5	1	
58	76401-229-610	BASE-PLATE;SBHG1-R T1.0	1	
59	79193-231-110	ASSY NOISE FILTER;RE-1200(SKW)	1	
60	77202-0062-00	TRANS-L.V;DY-1280STC RE-1280 230V 50HZ AC14V/3V	1	
61	76664-233-510	HINGE-LOWER;SBC1 T3.0(DACRON)	1	
62	76073-201-210	FOOT;DASF-330(RE-909CG)	4	
63	78352-201-570	RACK-WIRE(H);MSWR 155MM PI4	1	
64	78352-201-560	RACK-WIRE(L);MSWR 55MM PI3	1	
65	76464-223-630	HOLDER-BARBECUE;PTFE 9G	1	
66	72189-606-013	THERMISTOR-PROBE;PT-312-K2	1	
67	B4158-0023	LAMP;T25 230V 25W E14 PHILIPS	1	
68	76609-200-228	SOCKET-LAMP;E/14(22.225)	1	
69	76613-236-510	BRACKET-LAMP;SECC T0.8	1	
70	76154-209-010	COVER-LAMP;STS304 T0.4	1	
71	76144-201-910	GLASS-PLATE;TEMPERRED GLASS T3.2	1	
72	76614-277-010	BRACKET-HINGE(U);SBHG1-A T1.2	1	
73	76674-232-810	PLATE-SPRING;SK-5 T0.5	1	
74	73963-232-620	ADIABATIC-UPPER;T6 W379 L353.8 CERAMIC WOOL	1	
75	73589-001-039	SW-THERMO;PW-2N (ON60,OFF150) BKT23.8MM	1	
76	79292-213-620	ASSY-GUIDE AIR;RE-1280/1270	1	
77	79199-205-510	ASSY-BASE ROLLER;RE-909CG	1	
78	76112-209-010	TRAY-CERAMIC;RE-909CG	1	
79	79099-202-038	ASSY-BRACKET RESISTOR;FX175Z-D	1	
80	76613-241-710	BRACKET-PLATE;SECC T0.6	1	
81	76113-202-820	HANDLE-BARBECUE;TEMPERED SPRAY(BLK)	2	



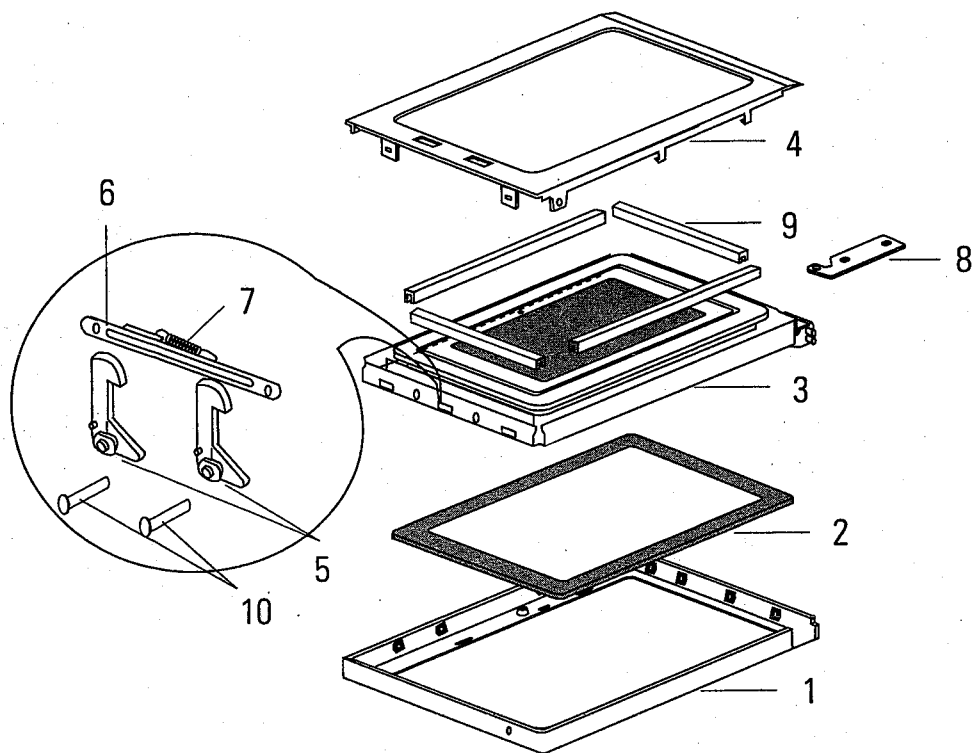
## Parts List - Standard Parts (WHITE)

Parts No.	Description / Specification	Q'ty	Remarks
77108-530-061	SCREW-TAP PH;2S-3X6 FE,FZY	2	TCO-MG
77128-240-125	SCREW-TAP TH;2-4X12 FE,FN	4	OUT-PN
77128-540-081	SCREW-TAP OH;2-SLOT 4X8 FE.FZY	4	B/GE-M
77128-540-101	SCREW-TAP TH;2S-4*10 FR FZY	2	B/PLAT
77154-203-810	SCREW-A;2S-4X12(TOOTHED)	9	BACK-P
77224-209-210	NUT-FLANGE;MSWR10 M5XP0.8 FE FZY	4	MGT
70504-0002-00	SCREW-TAP TITE;TH + 3 M4 L10 SWR10 ZPC2 TOOTH	1	N/FILT
70504-0004-00	SCREW-TAP;TH 2S 4 L12 MSWR3 ZPC3	6	BASE-P
77108-540-081	SCREW-TAP PH;+2S-4X8 FE FZY	2	TCO-GR
77128-240-086	SCREW-TAP TH;2-4X8 STS	4	PL-CEI
77128-240-086	SCREW-TAP TH;2-4X8 STS	2	G/LAMP
77128-240-125	SCREW-TAP TH;2-4X12 FE,FN	1	FR-PNL
77128-540-081	SCREW-TAP OH;2-SLOT 4X8 FE.FZY	2	C/A/LW
77128-540-101	SCREW-TAP TH;2S-4*10 FR FZY	4	B/HING
77128-540-101	SCREW-TAP TH;2S-4*10 FR FZY	1	FR-PNL
77128-540-101	SCREW-TAP TH;2S-4*10 FR FZY	4	DAMPER
77128-540-101	SCREW-TAP TH;2S-4*10 FR FZY	4	BASE-P
77128-540-101	SCREW-TAP TH;2S-4*10 FR FZY	9	CASING
77128-540-101	SCREW-TAP TH;2S-4*10 FR FZY	2	SUP-MG
77128-540-101	SCREW-TAP TH;2S-4*10 FR FZY	2	B/LAMP
77128-540-101	SCREW-TAP TH;2S-4*10 FR FZY	2	AIR-GU
77128-540-101	SCREW-TAP TH;2S-4*10 FR FZY	2	CV/A/R
77128-540-101	SCREW-TAP TH;2S-4*10 FR FZY	1	C/AI/B
77128-540-101	SCREW-TAP TH;2S-4*10 FR FZY	1	BACK-S
77128-540-101	SCREW-TAP TH;2S-4*10 FR FZY	1	A-D-L
77128-540-101	SCREW-TAP TH;2S-4*10 FR FZY	4	CV/D-M
77128-540-101	SCREW-TAP TH;2S-4*10 FR FZY	1	B/HVC
77128-540-101	SCREW-TAP TH;2S-4*10 FR FZY	1	CVR/BL
77154-203-810	SCREW-A;2S-4X12(TOOTHED)	2	CVR-BL
77154-203-810	SCREW-A;2S-4X12(TOOTHED)	2	BD-LAT
77154-203-810	SCREW-A;2S-4X12(TOOTHED)	2	SUP-MG
77154-203-810	SCREW-A;2S-4X12(TOOTHED)	1	H.V.D
77224-209-610	NUT-FLANGE;MSWR10 M4	2	BAR-HL
77224-209-610	NUT-FLANGE;MSWR10 M4	2	CONV-H
77224-209-610	NUT-FLANGE;MSWR10 M4	2	GRIL-H
77224-209-610	NUT-FLANGE;MSWR10 M4	1	SENSOR
77328-204-001	WASHER-TOOTHED;B-4PI FE FZY	1	BLOWER
70504-0008-00	SCREW-ASSY MACHINE;TH 4 L10 STS430	1	SENSOR
77028-140-086	SCREW-TH;+M4X8 STS304	2	BAR-HL
77108-540-101	SCREW-TAP PH;5-4X10 FE FZY	2	BAR-MO
77128-540-101	SCREW-TAP TH;2S-4*10 FR FZY	2	B/HTR
77154-202-910	WASHER-SCREW;2S-5X12	4	HVT
77154-203-810	SCREW-A;2S-4X12(TOOTHED)	2	B/REST
77168-530-081	SCREW-TAP PH;PLAIN 2S-3X8 FE.FZY	4	A/PCB
77108-530-061	SCREW-TAP PH;2S-3X6 FE,FZY	6	DOOR/E
70504-0002-00	SCREW-TAP TITE;TH + 3 M4 L10 SWR10 ZPC2 TOOTH	1	P/EART
77128-540-161	SCREW-TAP TH;2-SLOT-4X16 FE FZY	4	FOOT
77154-203-810	SCREW-A;2S-4X12(TOOTHED)	2	LVT
77154-203-810	SCREW-A;2S-4X12(TOOTHED)	2	COV/B
77328-204-001	WASHER-TOOTHED;B-4PI FE FZY	4	FOOT

## Parts List - Standard Parts (BROWN)

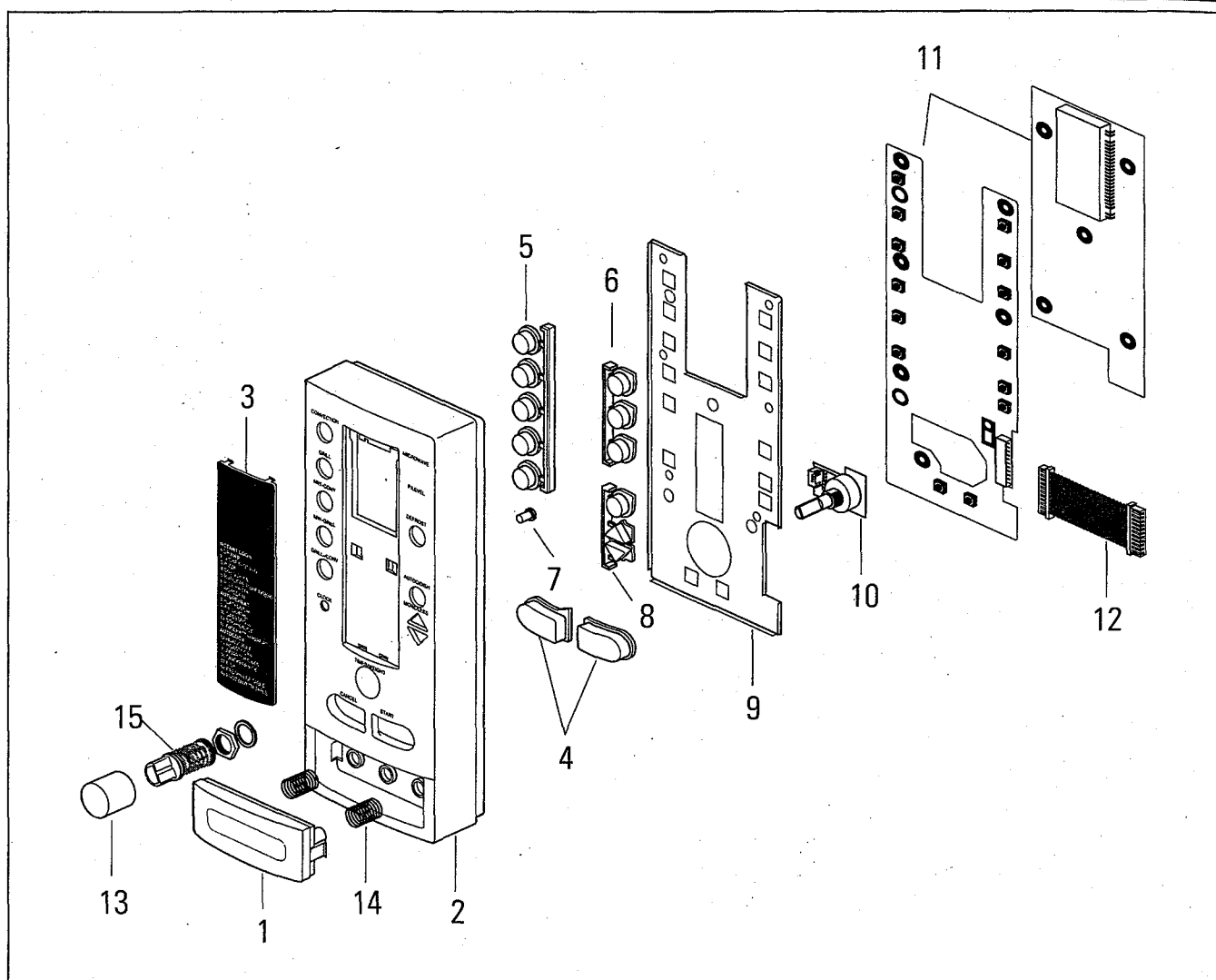
Parts No.	Description / Specification	Q'ty	Remarks
77108-530-061	SCREW-TAP PH;2S-3X6 FE,FZY	2	TCO-MG
77128-540-081	SCREW-TAP OH;2-SLOT 4X8 FE.FZY	4	B/GE-M
77128-540-101	SCREW-TAP TH;2S-4*10 FR FZY	2	B/PLAT
77154-203-810	SCREW-A;2S-4X12(TOOTHED)	9	BACK-P
77224-209-210	NUT-FLANGE;MSWR10 M5XP0.8 FE FZY	4	MGT
70504-0002-00	SCREW-TAP TITE;TH + 3 M4 L10 SWR10 ZPC2 TOOTH	1	N/FILT
70504-0004-00	SCREW-TAP;TH 2S 4 L12 MSWR3 ZPC3	6	BASE-P
77108-540-081	SCREW-TAP PH;+2S-4X8 FE FZY	2	TCO-GR
77128-240-086	SCREW-TAP TH;2-4X8 STS	4	PL-CEI
77128-240-086	SCREW-TAP TH;2-4X8 STS	2	G/LAMP
77128-540-081	SCREW-TAP OH;2-SLOT 4X8 FE.FZY	2	C/A/LW
77128-540-101	SCREW-TAP TH;2S-4*10 FR FZY	4	B/HING
77128-540-101	SCREW-TAP TH;2S-4*10 FR FZY	1	FR-PNL
77128-540-101	SCREW-TAP TH;2S-4*10 FR FZY	4	DAMPER
77128-540-101	SCREW-TAP TH;2S-4*10 FR FZY	4	BASE-P
77128-540-101	SCREW-TAP TH;2S-4*10 FR FZY	9	CASING
77128-540-101	SCREW-TAP TH;2S-4*10 FR FZY	2	SUP-MG
77128-540-101	SCREW-TAP TH;2S-4*10 FR FZY	2	B/LAMP
77128-540-101	SCREW-TAP TH;2S-4*10 FR FZY	2	AIR-GU
77128-540-101	SCREW-TAP TH;2S-4*10 FR FZY	2	CV/A/R
77128-540-101	SCREW-TAP TH;2S-4*10 FR FZY	1	C/AI/B
77128-540-101	SCREW-TAP TH;2S-4*10 FR FZY	1	BACK-S
77128-540-101	SCREW-TAP TH;2S-4*10 FR FZY	1	A-D-L
77128-540-101	SCREW-TAP TH;2S-4*10 FR FZY	4	CV/D-M
77128-540-101	SCREW-TAP TH;2S-4*10 FR FZY	1	B/HVC
77128-540-101	SCREW-TAP TH;2S-4*10 FR FZY	1	CVR/BL
77154-203-810	SCREW-A;2S-4X12(TOOTHED)	2	CVR-BL
77154-203-810	SCREW-A;2S-4X12(TOOTHED)	2	BD-LAT
77154-203-810	SCREW-A;2S-4X12(TOOTHED)	2	SUP-MG
77154-203-810	SCREW-A;2S-4X12(TOOTHED)	1	H.V.D
77224-209-610	NUT-FLANGE;MSWR10 M4	2	BAR-HL
77224-209-610	NUT-FLANGE;MSWR10 M4	2	CONV-H
77224-209-610	NUT-FLANGE;MSWR10 M4	2	GRIL-H
77224-209-610	NUT-FLANGE;MSWR10 M4	1	SENSOR
77328-204-001	WASHER-TOOTHED;B-4PI FE FZY	1	BLOWER
70504-0008-00	SCREW-ASSY MACHINE;TH 4 L10 STS430	1	SENSOR
77028-140-086	SCREW-TH;+M4X8 STS304	2	BAR-HL
77108-540-101	SCREW-TAP PH;5-4X10 FE FZY	2	BAR-MO
77128-540-101	SCREW-TAP TH;2S-4*10 FR FZY	2	B/HTR
77154-202-910	WASHER-SCREW;2S-5X12	4	HVT
77154-203-810	SCREW-A;2S-4X12(TOOTHED)	2	B/REST
77168-530-081	SCREW-TAP PH;PLAIN 2S-3X8 FE.FZY	4	A/PCB
77108-530-061	SCREW-TAP PH;2S-3X6 FE,FZY	6	DOOR/E
70504-0002-00	SCREW-TAP TITE;TH + 3 M4 L10 SWR10 ZPC2 TOOTH	1	P/EART
77128-540-161	SCREW-TAP TH;2-SLOT-4X16 FE FZY	4	FOOT
77154-203-810	SCREW-A;2S-4X12(TOOTHED)	2	LVT
77154-203-810	SCREW-A;2S-4X12(TOOTHED)	2	COV/B
77328-204-001	WASHER-TOOTHED;B-4PI FE FZY	4	FOOT

## Exploded View & Parts List - Door Parts



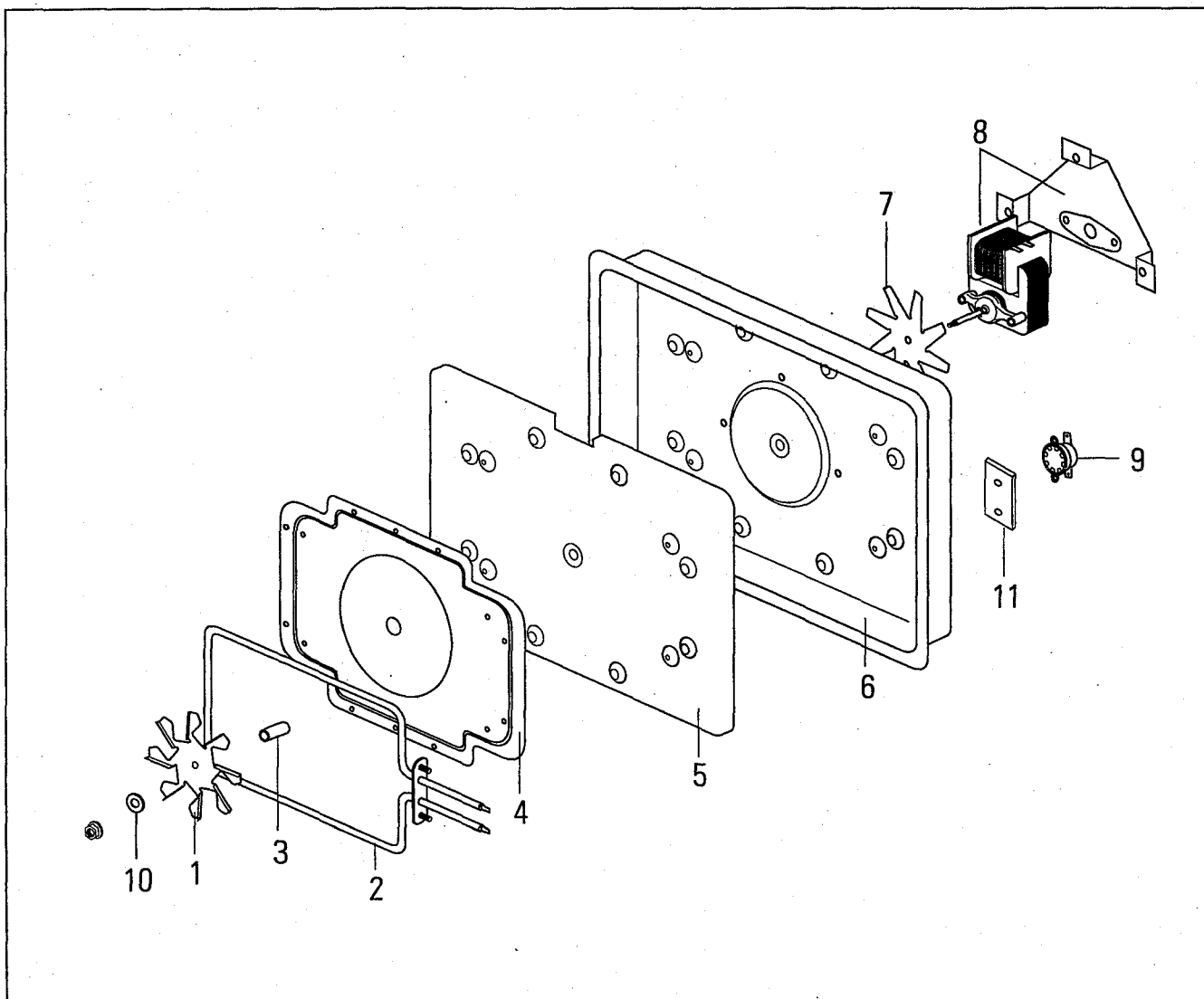
Ref. No.	Parts No.	Description / Specification	Q'ty	Remark
1	74041-0044-00	DOOR-A;PC(LEXAN#141) RP-WH-01-K 310G RE-1280	1	
1	74041-0044-01	DOOR-A;PC(LEXAN#141) BRN 310G RE-1280	1	
2	74112-0024-00	SCREEN-DOOR(B);TEMP GLASS T3.2XW313XL435 WHT	1	
3	79291-219-510	ASSY DOOR-E;SILICON BONDING	1	
4	76021-203-710	DOOR-C;PBT-1500G 158G	1	
5	76464-221-910	DOOR-KEY;NYLON#66-2411GF 5.1G	2	
6	79294-204-111	ASSY-BRACKET SLIDER;RE-909CG	1	
7	76674-232-030	SPRING-KEY;ES HSWR PI1.2 D5.8 L47	1	
8	76414-212-710	ASSY-HINGE(U);SBC1 T2.0	1	
9	76634-0003-00	FERRITE;DB-867CPE T4.1 W7.0 L1310	1	
10	77364-212-610	PIN-DOOR;MSWR ZPC3	2	

## Exploded View & Parts List - Control Parts



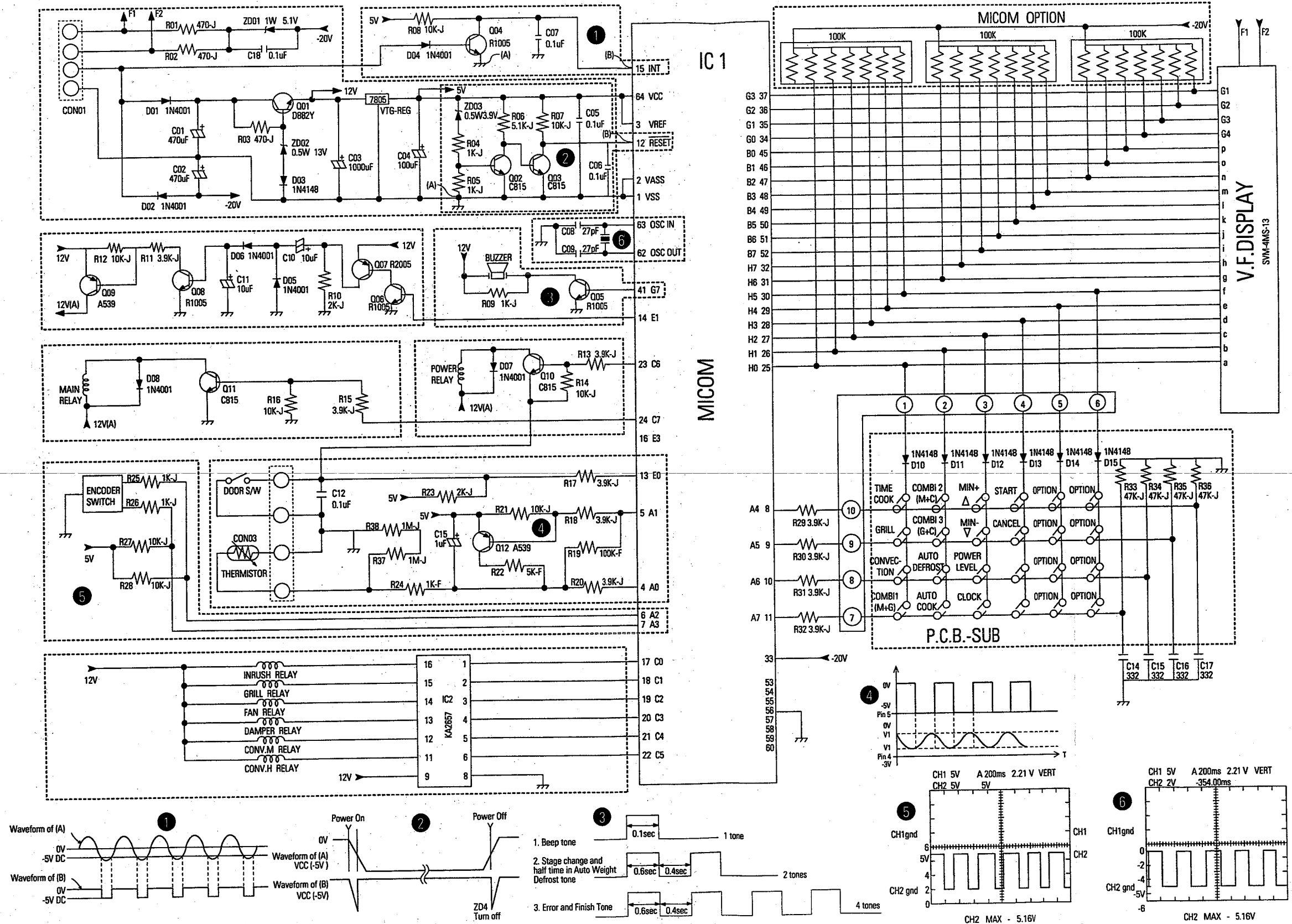
Ref. No.	Parts No.	Description / Specification	Q'ty	Remark
1	74082-0071-00	BUTTON-PUSH;PC(LEXAN#141) RP-WH-01-K 19G RE-1280	1	WHITE
1	74082-0071-01	BUTTON-PUSH;PC(LEXAN#141) BRN 19G RE-1280	1	BROWN
2	74051-0038-03	CONTROL-PANEL;PC RP-WH-01-K 230G RE-1280(SSW)	1	WHITE
2	74051-0038-09	CONTROL-PANEL;PC BRN 230G RE-1280(SSW)	1	BROWN
3	74073-0016-02	WINDOW-DISPLAY;ACRYL SMOG 40G RE-1280(SSW)	1	
4	74083-0069-00	BUTTON-CANCEL;PC(LEXAN#141) RP-WH-01-K 6G RE-1280	2	WHITE
4	74083-0069-01	BUTTON-CANCEL;PC(LEXAN#141) BRN 6G RE-1280	2	BROWN
5	74082-0073-00	BUTTON-SELECT(L);PC(LEXAN#141) RP-WH-01-K 16G	1	WHITE
5	74082-0073-01	BUTTON-SELECT(L);PC(LEXAN#141) BRN 16G RE-1280	1	BROWN
6	74083-0072-00	BUTTON-SELECT(R);PC(LEXAN#141) RP-WH-01-K 10G	1	WHITE
6	74083-0072-01	BUTTON-SELECT(R);PC(LEXAN#141) BRN 10G RE-1280	1	BROWN
7	74084-0074-00	BUTTON-CLOCK;PC(LEXAN#141) RP-WH-01-K 1G RE-1280	1	WHITE
7	74084-0074-01	BUTTON-CLOCK;PC(LEXAN#141) BRN 1G RE-1280	1	BROWN
8	74082-0070-00	BUTTON-MORE;PC(LEXAN#141) RP-WH-01-K 7G RE-1280	1	WHITE
8	74082-0070-01	BUTTON-MORE;PC(LEXAN#141) BRN 7G RE-1280	1	BROWN
9	73012-0190-00	BRACKET-PANEL;SECC T0.8 W107 L286.35	1	
10	A3012-0011	SW-ROTARY;1C36P 14MM NSH SDB16(9X6)PVB20F 28V 10MA	1	
11	79129-0121-00	ASSY P.C.B;230V50HZ RE-1280	1	
12	79194-226-840	ASSY WIRE HARNESS-F;110/220V 60HZ MX200TCC 130MMX3	1	
13	74083-0068-00	KNOB-VOLUME;PC(LEXAN#141) RP-WH-01-K 5G RE-1280	1	WHITE
13	74083-0068-01	KNOB-VOLUME;PC(LEXAN#141) BRN 5G RE-1280	1	BROWN
14	76674-239-310	SPRING-BUTTON;HSWR P10.6	2	
15	79294-212-010	SW-VOLUME;4M17736	1	

## Exploded View & Parts List - Casing Parts



Ref. No.	Parts No.	Description / Specification	Q'ty	Remark
1	75703-202-010	BLADE-FAN;ALSTAR T0.6X250X250	1	
2	76402-0008-01	HEATER-CONVECTION;D8 230V6.1A 1400W RE-1280	1	
3	75114-100-110	BUSHING GEAR MOTOR;SWRM3 PI5XPI7 ZPC3	1	
4	76152-241-810	HEATER COVER "A";ALSTAR T0.6X914X1829	1	
5	70243-0005-00	ADIABATIC-HEATER;T10 W369 L277 EGF-E3019-PBS	1	
6	76152-241-910	HEATER COVER "B";SECC T0.6	1	
7	75703-201-810	BLADE-FAN;SECC T0.6	1	
8	79262-0166-00	ASSY-CONV.MOTOR;AMM90-004AUEA 230V0.33A	1	
9	73589-001-039	SW-THERMO;PW-2N (ON60,OFF150) BKT23.8MM	1	
10	77308-305-001	WASHER-PLAIN;T0.8*PI5*PI12 FE,EZY	1	
11	70244-0023-00	INSULATION-T.C.O.; T2,0 W34 L26 YEL	1	

PCB Circuit Diagram



## Parts List - PCB Parts

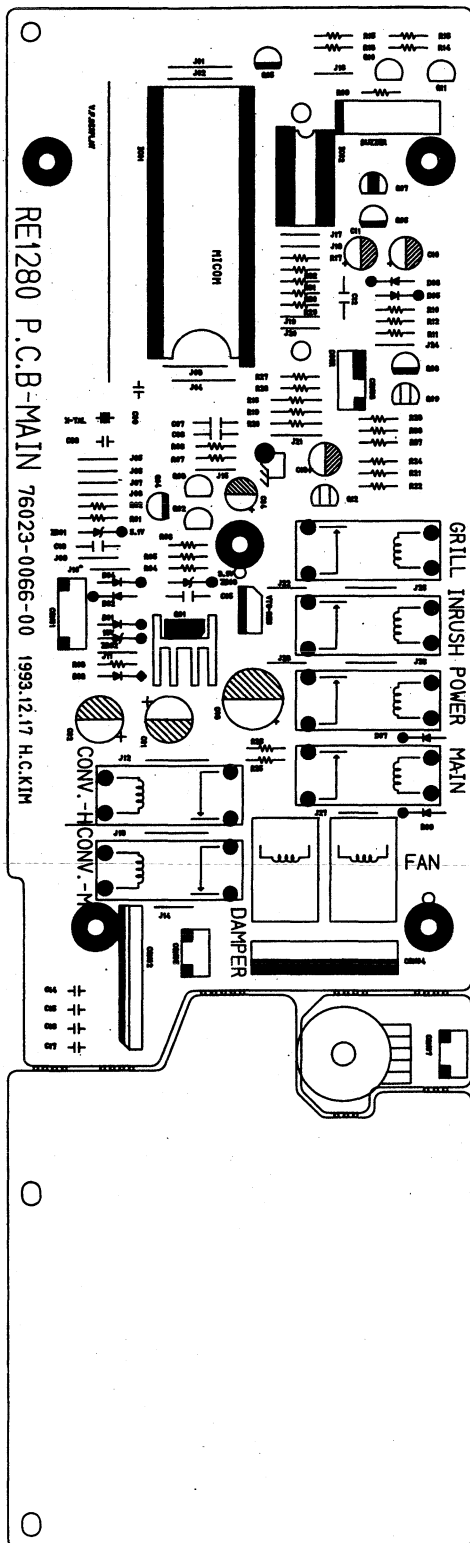
Parts No.	Description / Specification	Q'ty	Remark
72147-301-431	TR-POWER;KSD882Y(TAPG)	1	
71018-275-102	R-METAL FILM;RM 1/4 TP 1K-F	1	R24
71018-275-104	R-METAL FILM;RM 1/4 TP 100K-F	1	R19
71018-275-502	R-METAL FILM;RM 1/4 TP 5K-F	1	R22
71018-277-102	R-CARBON;RD1/4TP 1K-J	1	R04
71018-277-102	R-CARBON;RD1/4TP 1K-J	1	R05
71018-277-102	R-CARBON;RD1/4TP 1K-J	1	R09
71018-277-102	R-CARBON;RD1/4TP 1K-J	1	R25
71018-277-102	R-CARBON;RD1/4TP 1K-J	1	R26
71018-277-103	R-CARBON;RD1/4TP 10K-J	1	R08
71018-277-103	R-CARBON;RD1/4TP 10K-J	1	R12
71018-277-103	R-CARBON;RD1/4TP 10K-J	1	R14
71018-277-103	R-CARBON;RD1/4TP 10K-J	1	R16
71018-277-103	R-CARBON;RD1/4TP 10K-J	1	R21
71018-277-103	R-CARBON;RD1/4TP 10K-J	1	R27
71018-277-103	R-CARBON;RD1/4TP 10K-J	1	R28
71018-277-202	R-CARBON;RD1/4TP 2K-J	1	R10
71018-277-202	R-CARBON;RD1/4TP 2K-J	1	R23
71018-277-392	R-CARBON;RD1/4TP 3.9K-J	1	R11
71018-277-392	R-CARBON;RD1/4TP 3.9K-J	1	R13
71018-277-392	R-CARBON;RD1/4TP 3.9K-J	1	R15
71018-277-392	R-CARBON;RD1/4TP 3.9K-J	1	R17
71018-277-392	R-CARBON;RD1/4TP 3.9K-J	1	R18
71018-277-392	R-CARBON;RD1/4TP 3.9K-J	1	R20
71018-277-392	R-CARBON;RD1/4TP 3.9K-J	1	R29
71018-277-392	R-CARBON;RD1/4TP 3.9K-J	1	R30
71018-277-392	R-CARBON;RD1/4TP 3.9K-J	1	R31
71018-277-392	R-CARBON;RD1/4TP 3.9K-J	1	R32
71018-277-471	R-CARBON;RD1/4TP 470-J	1	R01
71018-277-471	R-CARBON;RD1/4TP 470-J	1	R02
71018-277-471	R-CARBON;RD1/4TP 470-J	1	R03
71018-277-473	R-CARBON;RD1/4TP 47K-J	1	S-R33
71018-277-473	R-CARBON;RD1/4TP 47K-J	1	S-R34
71018-277-473	R-CARBON;RD1/4TP 47K-J	1	S-R35
71018-277-473	R-CARBON;RD1/4TP 47K-J	1	S-R36
71018-277-512	R-CARBON;RD1/4TP 5.1K-J	1	R06
71018-277-512	R-CARBON;RD1/4TP 5.1K-J	1	R07
71417-065-270	C-CERAMIC;CC45SL(TAPG)50V 27PF-K	1	C08
71417-065-270	C-CERAMIC;CC45SL(TAPG)50V 27PF-K	1	C09
71607-401-040	C-ELEC;CE 0.4W(TAPG)50V 10UF	1	C10
71607-401-040	C-ELEC;CE 0.4W(TAPG)50V 10UF	1	C11
71607-402-004	C-ELEC;CE 0.4W(TAPG)50V 1UF	1	C13
71607-402-294	C-ELEC;CEO.4W35V470UF(TAPG)	1	C01
71607-402-294	C-ELEC;CEO.4W35V470UF(TAPG)	1	C02
71607-402-297	C-ELEC;CEO.4W25V1000UF(TAPG)	1	C03
72137-101-064	TR-PNP; KSA 539Y (TAPG)	1	Q09
72137-101-064	TR-PNP; KSA 539Y (TAPG)	1	Q12
72137-301-010	TR-NPN;KSC 815-Y(TAPG)	1	Q02
72137-301-010	TR-NPN;KSC 815-Y(TAPG)	1	Q03
72137-301-010	TR-NPN;KSC 815-Y(TAPG)	1	Q10
72137-301-010	TR-NPN;KSC 815-Y(TAPG)	1	Q11
72169-406-230	DIODE-ZENER;UZ-5.1BTP	1	ZD01
72169-406-246	DIODE-ZENER;UZ-3.9BTP	1	ZD03
72169-406-260	DIODE-ZENER;13V 0.5W 5%	1	ZD02
73349-202-120	CONNECTOR;JST B3B-XH-A/2521P03V000	1	CON05
73349-202-120	CONNECTOR;JST B3B-XH-A/2521P03V000	1	ECON07
73349-206-782	CONNECTOR-XH;B4B-XH-4/2521P04V000	1	CON03
73349-206-811	CONNECTOR-XH;B5B-XH-A/2521P05V000	1	CON01
74537-001-001	RESONATOR-CERAMIC;CSA 4.19MG(TAPG)	1	X-TAL
74729-204-528	RELAY;KM1-M12NIL	1	DAMPER
74729-204-528	RELAY;KM1-M12NIL	1	FAN
76023-0066-00	P.C.B-MAIN(SUB);FR-1 T1.6 W197 L327 RE-1280	1	S. N. A
77199-0090-01	MICOM;TMS73C91-C69409 RE1280 DIP	1	MICOM

## Parts List - PCB Parts

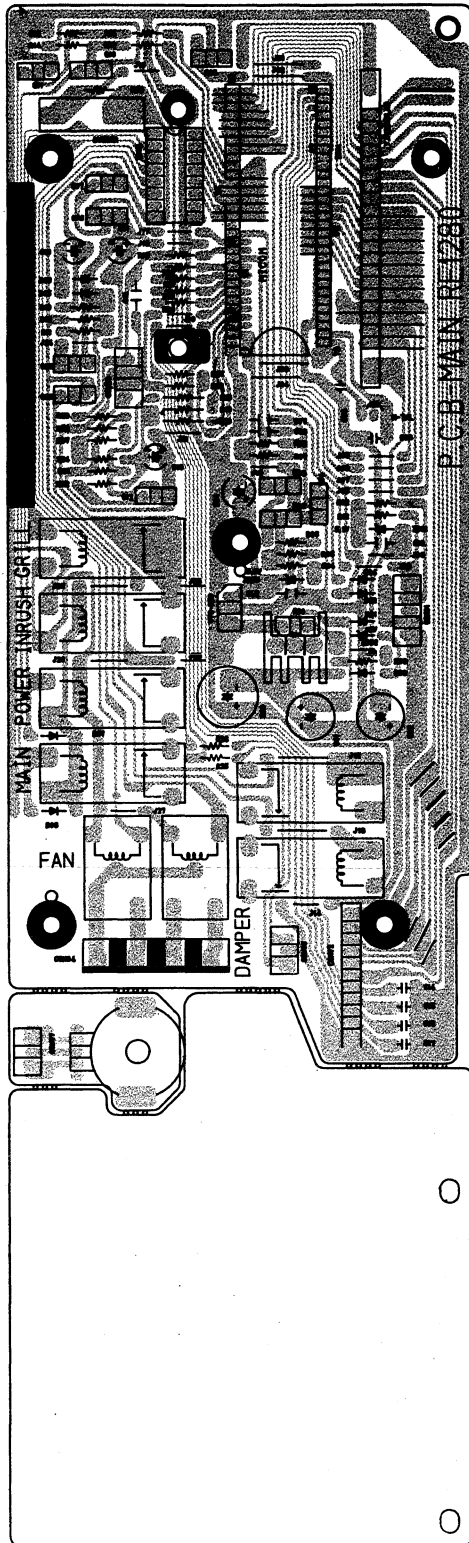
Parts No.	Description / Specification	Q'ty	Remark
A1100-0340	C-CERAMIC;CK OA Y5V 50V T 104-Z UP050F104ZBB	1	C05
A1100-0340	C-CERAMIC;CK OA Y5V 50V T 104-Z UP050F104ZBB	1	C06
A1100-0340	C-CERAMIC;CK OA Y5V 50V T 104-Z UP050F104ZBB	1	C07
A1100-0340	C-CERAMIC;CK OA Y5V 50V T 104-Z UP050F104ZBB	1	C12
A1100-0340	C-CERAMIC;CK OA Y5V 50V T 104-Z UP050F104ZBB	1	C18
A1100-0802	C-CERAMIC;CG OA Y5R 16V T 332-M EP050X332MB	1	C14
A1100-0802	C-CERAMIC;CG OA Y5R 16V T 332-M EP050X332MB	1	C15
A1100-0802	C-CERAMIC;CG OA Y5R 16V T 332-M EP050X332MB	1	C16
A1100-0802	C-CERAMIC;CG OA Y5R 16V T 332-M EP050X332MB	1	C17
A1104-0015	C-ELEC;CE 04 C 10V T 101-M LN W SRA 6.3X7X2.5	1	C04
A4060-0008	TR-W/RESISTOR;KSR1005 300MW 100MA 50V EBN/4.7KR1	1	Q04
A4060-0008	TR-W/RESISTOR;KSR1005 300MW 100MA 50V EBN/4.7KR1	1	Q05
A4060-0008	TR-W/RESISTOR;KSR1005 300MW 100MA 50V EBN/4.7KR1	1	Q06
A4060-0008	TR-W/RESISTOR;KSR1005 300MW 100MA 50V EBN/4.7KR1	1	Q08
A4060-0009	TR-W/RESISTOR;KSR2005 300MW -100MA -50V EBP/4.7KR1	1	Q07
A4100-0003	DIODE-SW;1N4148 1.2V 4.0NS T	1	D04
A4100-0003	DIODE-SW;1N4148 1.2V 4.0NS T	1	S-D09
A4100-0003	DIODE-SW;1N4148 1.2V 4.0NS T	1	S-D10
A4100-0003	DIODE-SW;1N4148 1.2V 4.0NS T	1	S-D11
A4100-0003	DIODE-SW;1N4148 1.2V 4.0NS T	1	S-D12
A4100-0003	DIODE-SW;1N4148 1.2V 4.0NS T	1	S-D13
A4100-0003	DIODE-SW;1N4148 1.2V 4.0NS T	1	S-D14
A6010-0470	CONNECTOR-WAFER;YW396-07AV WHT	1	CON04
B4104-0001	DIODE-RECT;1N4001 50V 1A T	1	D01
B4104-0001	DIODE-RECT;1N4001 50V 1A T	1	D02
B4104-0001	DIODE-RECT;1N4001 50V 1A T	1	D03
B4104-0001	DIODE-RECT;1N4001 50V 1A T	1	D05
B4104-0001	DIODE-RECT;1N4001 50V 1A T	1	D06
B4104-0001	DIODE-RECT;1N4001 50V 1A T	1	D07
B4104-0001	DIODE-RECT;1N4001 50V 1A T	1	D08
A1305-0005	BUZZER;CBE2220BA BULK	1	
A3068-0080	RELAY;CS-1PD DC12V16A	1	POWER
A3068-0080	RELAY;CS-1PD DC12V16A	1	MAIN
A3068-0080	RELAY;CS-1PD DC12V16A	1	GRILL
A3068-0080	RELAY;CS-1PD DC12V16A	1	INRUSH
A3068-0080	RELAY;CS-1PD DC12V16A	1	CONV-H
A3068-0080	RELAY;CS-1PD DC12V16A	1	CONV-M
A4012-0005	IC-LINEAR;KA2657N DIP LED DRIVE	1	
A4153-0063	V.F.DISPLAY;SVM-4MS13S MWO RE-1280	1	
A6000-0034	CONNECTOR-ASSY;BSS;YMT-025-11/YMT-025-11 1007#26	1	
A6010-0041	CONNECTOR-WAFER;YMW-025-11	1	CON02
A6010-0064	CONNECTOR-WAFER;YMAW-025-11	1	CON06
A6010-0075	CONNECTOR-WAFER;YFW-500-01	1	



# Touch Control Circuit (PCB)

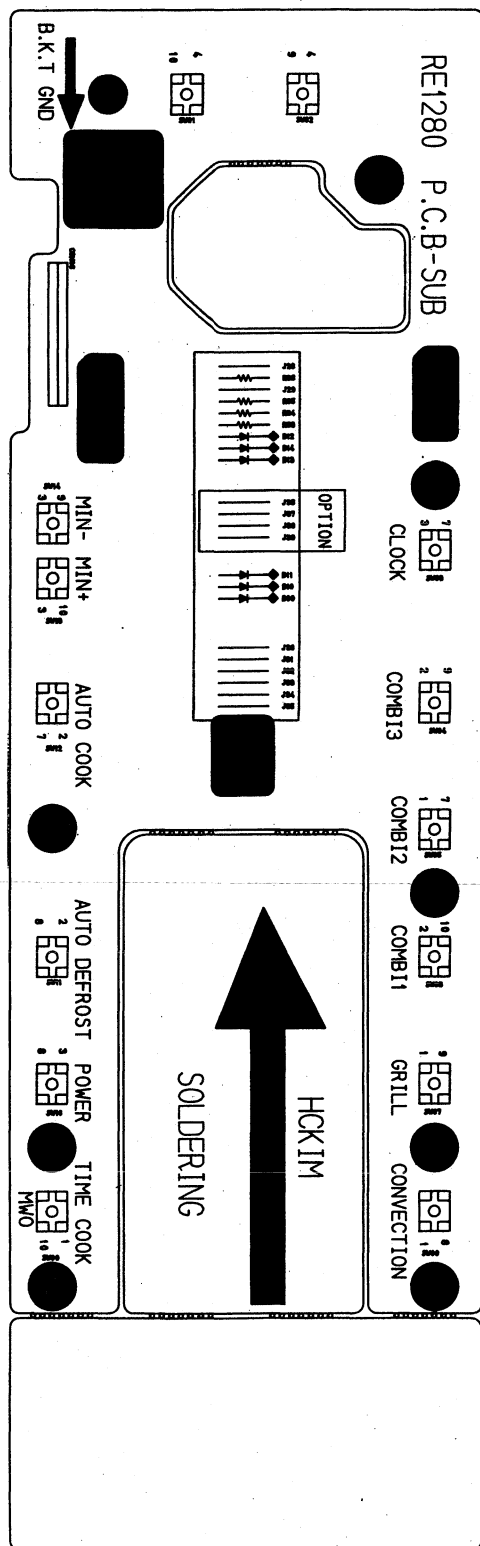


- Component Side -

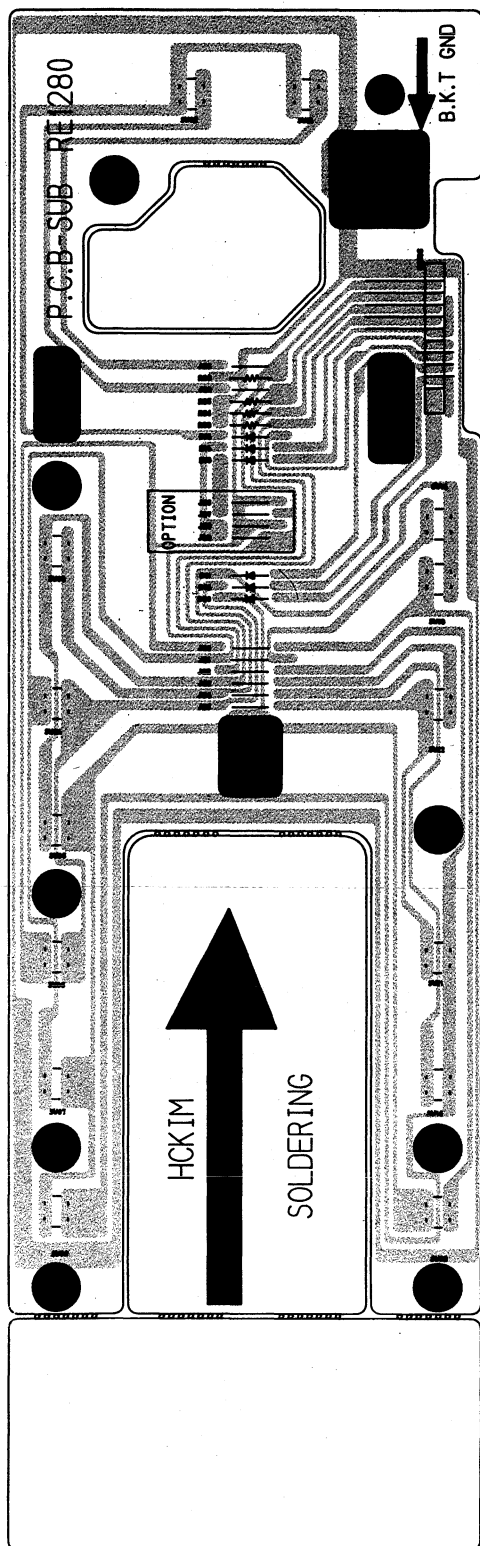


-Foil Pattern (Solder Side) -

# Touch Control Circuit (PCB-SUB)



- Component Side -



- Foil Pattern (Solder Side) -